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ABSTRACT

Articles collected in this booklet discuss topics related to the back-to-basics controversy: basic steps in teaching reading, creative reading, the relationship between reading and writing, teaching creative reading through museum experiences, content reading, and the use of prereading as a study skill. In addition, directions for using a readability graph, suggestions for improving math skills through reading, and discussion of the role of English teachers in promoting literacy are provided. Discussions of reading and vocational education and the functional education needs of adult basic-education students in New Jersey and an annotated bibliography of 12 selected texts for teaching reading at the secondary level complete the booklet. Authors include, among others, Edward Fry, Joseph Zelnick, Patricia Grant, and Josephine Goldsmith. (KS)

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BACK TO BASICS

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PREFACE

What is basic to good instruction in reading? For some teachers, decoding and literal comprehension are basic. For others, these are not enough. Instruction has to go beyond this point. These teachers believe that creative reading invests life with vitality and ardor and is, therefore, also essential.

Clearly, good teachers are necessary for good instruction. The issue is who should teach reading. Some teachers believe that reading should be taught by a select group of teachers: primary teachers, reading specialists, English teachers. Others contend that reading needs to be taught by every teacher. If war is too important to be left to the generals, then certainly reading is too important to be left to a select group of teachers. Basic to good instruction is every teacher teaching reading.

What you hold to be basic, on these and other issues, will influence your teaching. Perhaps the articles in this booklet will affect your understanding of what is basic and thereby enrich your classroom teaching experience.

Nancy Wong Nelson
Editor

October 1977

BASIC STEPS IN TEACHING READING

by Edward Fry, Director
Reading Center
Rutgers University

It is important to have a definition of reading because it will help to keep your thinking on track and give your lessons the proper emphasis: Reading is the process of getting meaning from written language.

If you are really going to teach reading, in addition to having a definition of reading, you must consider these questions: "What do you do first?" "What are some basic principles or steps that you should keep in mind?"

A partial answer to these questions will be answered in the five steps that follow. They are not a complete reading program, but they will help you to get started. They will help you to see how many of the chapters which follow are related to the basic process of teaching reading and to specific lesson plans. If you have a little bit of each of these five steps in every lesson you teach, you will have a fairly solid reading program. There is much more to the teaching of reading, but these basic steps are a good foundation.

Basic Step 1: Matching

Before you can begin teaching reading to a child, or a whole class for that matter, you must assess reading abilities in order to provide reading material at the proper level of difficulty. This is important, for a mismatch in reading material can result in disinterested readers. Material that is too difficult is frustrating and breeds failure, which in turn often causes a dislike of reading. Similarly, asking a child to read material that is not challenging may not be advisable.

You can find out a child's reading ability by looking at recent reading tests, or by using informal reading tests, or--in a pinch--by using the one-out-of-twenty rule. ("When the student makes more than one mistake out of twenty words while reading aloud, the material is probably too difficult and you should select something easier.") Published oral tests are also helpful.

Determining the difficulty of the reading material is an area called "readability." You can get some help in determining the difficulty of written material by using readability formulas, but your own judgment is also valuable. The latest version of my readability graph can be found elsewhere in this booklet.

Basic Step 2: Phonics

Phonics instruction involves breaking words into phonetic elements (speech sounds) rather than into individual letters. Part of many reading lessons, and sometimes a whole lesson, is devoted to phonics or word analysis. Informally, you can get an idea of what phonic or word-attack skills the student knows by listening carefully to oral reading errors, or by asking him or her to sound out unknown words. For a more formal assessment, phonics criterion referenced tests can be used. Informally, you can even ask the child to try to sound out some nonsense syllables that you make up. There are many ways to teach word-attack skills, varying from workbook pages to audiovisual devices. The teacher can explain phonics principles to the student from charts or play card games with them.

Basic Step 3: Words

Many teachers see words as the building blocks of the reading process. Certainly they are important. A very few high-frequency words make up a high percentage of all reading material. Instant recognition of these words is important. If a child has to sound out words like "of" and "this," comprehension will be lost in slowing down to try to sound them out. Hence, sight recognition of basic vocabulary is important for beginning readers, and vocabulary improvement (learning the meaning of more difficult words) is important for more advanced readers. Both sight vocabulary and vocabulary improvement are basic reading skills that can be taught. Vocabulary knowledge can also be assessed. There are many types of vocabulary tests, and almost all of the major formal reading tests include a vocabulary section. Since many basal reading systems do a good job of teaching sight vocabulary, you can look at them for further suggestions and actual materials.

In an individual or small group situation you can help a child build his or her vocabulary by simply writing down a list of words that the child doesn't know during oral or silent reading. Use the child's individual list to explain meaning, regular and irregular uses, and even phonic or syllabification elements.

Basic Step 4: Comprehension

As I stated before and will state again, the major purpose of reading is comprehension, so the teacher must regularly attempt to assess comprehension, call attention to its importance, and teach it in a wide variety of reading situations. Study skills are closely related to both the concept and the teaching methods of comprehension.

One of the simplest ways to test and teach comprehension is simply to ask the child to tell you about what he or she has read. If the child hesitates or does a weak job, your questions can help elicit whether he or she is getting all the facts, and assess higher comprehension skills. Particularly for bright children, you can have an

enjoyable and intellectually challenging experience by trying to apply some of the principles of critical reading. There are a multitude of commercially prepared comprehension materials available at all levels.

Basic Step 5: Motivation and Practice

Last but not least, one of the reading teacher's most important functions is to help provide motivation and practice. Motivation to learn to read starts in the home. In some homes, there is excellent motivation by parents' examples and exhortations, but in others the atmosphere is indifferent. Schools can help to overcome some home deficiencies with individual attention and interesting experiences. They can also foster a good group attitude, as children take many of their values from their peers.

Few children learn to read well without much practice in both structured reading lessons and informal or leisure reading experiences. The teacher needs to provide structured lessons and create opportunities for reading under less formal conditions. There is a clear and definite relationship between time spent in school and skill in reading. There are exceptions, but on the average, the more time spent in school, the better the reader. United States Census Bureau estimates of literacy levels are based on years of schooling. Historically, one of the reasons for the founding of the public school system was to increase the percentage of the population that could read. It has been known for a long time that the best way, and certainly the most common way, for a child or an adult to learn to read is to be under the instruction of a professional teacher. While a small number of children are first taught to read by parents or friends, most children learn to read in school. Teachers need to take their responsibility seriously, and providing interesting, motivating reading lessons on a regular basis is the way that this charge is carried out.

One of the most important ways of maintaining or increasing motivation is to provide lessons and situations in which the student can usually be successful. If a child "fails" a lesson, it is frequently the method or content that has "failed." Good teachers build success on success.

Success should not be limited to reading skills lessons. While they are often important, it is reading itself that is most important. It is the teacher's job to see that reading is meaningfully used in learning other subjects and in expanding the whole child through pleasurable and informative reading of books, articles, poetry, and creative hobby directions. All of these are reading practice and, if done correctly, are motivating.

From Elementry Reading Instruction by Edward Fry. McGraw-Hill, N.Y., 1977.

CREATIVE READERS ARE "MADE" - NOT BORN!

by Joseph Zelnick
Livingston College
Rutgers University

The idea came to Ms. Fox from Carolyn Carmichael's article, "Fostering Understanding in Self and Others." She decided that Alexander and the Terrible, Horrible, No Good, Very Bad Day would be a good story to read aloud to her third graders.

Preparatory to reading, she posed the question, "What is the difference between a day and a bad day?" From their backgrounds, the children offered a variety of answers. Ms. Fox then asked, "What makes a bad day?" She was deluged with responses ranging from breakfast-table accidents to household quarrels.

At this juncture Ms. Fox showed the book cover to the class. She read the title, followed by such questions as:

1. "What do you think this story will be about?"

2. "What are some things that could make it a bad day for Alexander?"

3. "Do you think other people might be in the story? Who?"

4. "Could it be a sad story? Funny?"

She gave the children time to imagine and speculate. Not allowing interest to waver, however, she proceeded to read the story which began thus:

> I went to sleep with gum in my mouth and now there's gum in my hair and when I got out of bed this morning I tripped on the skateboard and by mistake I dropped my sweater in the sink while the water was running and I could tell it was going to be a terrible, horrible, no good, very bad day.

At opportune moments during the reading, Ms. Fox paused to inquire:

1. "Do you think Alexander's day will get better or worse?"

2. "What do you think will happen next?"

3. "In what way are you like Alexander?"

4. "In what way are you different from him?"

5. "Would you like to have him as a friend?"

When she finished reading the story, Ms. Fox asked:

1. "Could Alexander have done anything to make the day better?"

2. "Why did he say he wanted to go to Australia?"

3. "Would you like to have him as a friend?"

4. "Could we change anything in the story to make it better?"

Questions such as the foregoing can help children to become creative readers. They (the children) can learn to use reading to fulfill personal goals as well as to develop permanent reading skills. Such questions can raise their expectations of a reading selection and help them to relate the problems of characters to their own experiences.

WHAT IS CREATIVE READING?

Creative reading is that type of reading which uses the author's ideas in new and different ways. The reader's responses go beyond the facts stated or intended by the author. Creative reading involves reflection, reaction, imagery, and prediction. Involvement with the content is essential if reading is to become a personally satisfying experience. In this sense, creative reading is a basic skill which should be a goal in every reading program.

CREATIVE THINKING IN SOCIAL STUDIES

Questions put forth by teachers can stimulate critical and creative thinking. But they must rise above the literal level. Questions about facts and details will not necessarily involve readers on a personal level, nor inspire them to do something additional with what has been read.

Two types of questions can guide students to higher levels of thinking and understanding in social studies assignments. Extrapolation involves questions which can lead students to form hypotheses or inferences. During the reading of current events, for example, questions like the following may emerge:

1. You are the principal of the school. What changes would you make?

2. As the mayor of the town, what would you do about the following problems:

   littering in the streets,
   bicycle or moped accidents?

3. The president has appointed you as a member of a commission on conserving energy. What suggestions would you make about cutting down on the use of gasoline?

Certain types of "if" questions can help pupils think about events and relationships in reading materials.

1. How different might our country be if Chinese explorers discovered America in 1492?

2. If an individual from outer space landed on our planet today, what would he or she look like?

3. What do you think would happen if electric power plants went on strike for a whole year?

4. In what ways would our lives be different if the colonists had lost the revolution?

CREATIVE THINKING IN SCIENCE

Questioning techniques can also promote creative thinking in science lessons. Goldin suggests starting a collection of "We want to know" questions raised by the pupils as well as the teacher. At appropriate times, specific questions can be selected for study. The "We Want to Know" box (or chart) may include such questions as:

1. Why does a balloon get smaller in the refrigerator?

2. What will happen to a plant if you put it in the closet for a week?

3. What would our lives be like without ice?

4. How can we make our own magnifying glass?

5. Why do we have to put water in the fish tank every Friday?

Questions such as these can involve children in hypothesizing and predicting outcomes. Answers can be verified through reading and experimentation.

DOING SOMETHING WITH READING

Doing something with what has been read can result in creative involvement. This writer recalls a student who read aloud Sendah's Where the Wild Things Are. She then distributed paper and crayons and requested each pupil to do two things: to draw someone or something inspired by the story and to write a caption for the drawing. When everyone finished, she collected the drawings and made a hand-rolled T.V. movie with a cut-out carton. The culmination was a delightful sharing experience.

Torrance offers four suggestions for doing something with what was read:

Reproducing. Students can be inspired to "tell about it" with imagination. Sometimes such an activity can best be started by the teacher giving the first presentation.

Specific ways in which pupils can be led into "creative telling" include the following:

1. Try to interest the class in a book (story) you have read by reading an exciting or funny part. But practice before you read it to them.

2. Pretend you are a famous character from a history book or story. Give hints about how you look or what you do. See if the class can guess who you are.

3. After practicing with the teacher, read or recite a favorite poem.

4. Using only pantomime, "tell" about a character in a poem or story (e.g. "Casey at the Bat")

5. Tell something interesting about a country about which you have read. Then ask a few questions to see which facts the class can remember.

Elaboration goes beyond reproduction. It expands upon what has been read through the creation of new alternatives or possibilities. Children can elaborate through activities like the following:

1. Illustrate what has been read.

2. Dramatize a story or event.

3. Write a different ending.

4. Tell how you would have done things differently from a character in the story or book.

5. Make up another adventure for one of the characters.

6. Tell about an adventure of your own that was similar to one which a character in the book had.

Elaborating has been used successfully with remedial or reluctant readers. It removes them from the anxiety of "right" or "wrong" answers. It enables them to make visual or figural contributions. A child can learn to derive satisfaction from reading (and thus be encouraged to read more) without being one of the "top" readers in the class.

Transforming includes rearranging what has been read. Torrance gives the example of Shakespeare who rearranged plots and characters from history rather than invent new ones. Some transforming activities which can provide satisfying and enjoyable experiences are presented below:

1. Make a puppet play from an interesting or exciting part of a book.

2. After reading a biography, pretend that you visited that person when he was your age. Tell about some of the things you did.

3. Pretend you are the author of a book or story you have read. Have a classmate conduct a "T.V." interview with you.

4. Present a T.V. commercial about your book. Try to convince others to "buy" it.

5. Write a letter to a character in the book. Tell how you feel about him. Tell about how your life compares with her or his life.

Going Beyond What is Read. The creative process can be enhanced by allowing and encouraging children to do or make something with what has been read. Interest in a story can result in many new questions and ideas. Activities which can send the reader beyond the story or interest of the author include:

1. Make a map which shows the adventures or travels of the characters in a book.

2. Demonstrate a science principle by performing an experiment for the class (e.g. following the directions for making a magnifying glass).

3. Make a time line of a story or series of events. Make drawings or find pictures to illustrate the events.

4. Illustrate characters in the book by making puppets or clothes for dolls.

5. Make a model of an object in a book, story, or lesson (e.g. the Wright Brothers' plane).

May offers a number of interesting suggestions for creative projects which can accompany or follow reading experiences.

What is implied in the foregoing paragraphs? Creative reading and thinking need not be the exclusive province of the "gifted" and "intellectually superior" children. Every child is gifted in one way or another.

Most children can learn to function in new and innovative ways. They can be encouraged to seek answers and solutions which diverge from traditional ones. They can be liberated from the "right or wrong" syndrome, which too often stifles originality. In a world which is desperately in need of creative approaches to current problems, it behooves us as teachers to develop "free spirits" through the encouragement of creative thinking and problem solving.

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READING AND WRITING--HOW DO THEY GO TOGETHER?

by Patricia Grant
Rutgers University

Using subject-related material, regularly assigned, as the vehicle for instruction, content teachers can provide for the simultaneous teaching of reading skills and course content. Neither has to be sacrificed to the other.

Harold L. Herber
Teaching Reading in
the Content Areas

Introduction

The above quotation reflects the often serious concern of many content area teachers that teaching one's own content specialty and teaching reading are two separate areas, in which the content teacher is responsible to teach only his/her subject. Thus, it is with some trepidation that the content area teacher approaches that monolithic area called reading. Interestingly enough, often those teachers most effective at teaching their subjects are those who are already regularly teaching reading, although they may not realize it. For instance, if a teacher is careful to go over difficult vocabulary words showing students how to arrive at meaning via using prefixes, suffixes and roots, that teacher is teaching reading. If another teacher shows students how to find the main idea in a given section of a reading passage, he is teaching reading, or if some other teacher requires students to arrive at logical conclusions based on presented facts, she, too, is teaching reading.

The focus of this paper shall be on teaching reading in the Language Arts area. Technically, Language Arts includes all communication skills--reading, writing, speaking and listening. However, for purposes of keeping the paper succinct, I shall focus on methods, means and materials for improving writing skills, for aiding vocabulary development and for stimulating a genuine interest in language. By focusing students' attention on the fun and flavor of language, the student can learn that Language Arts isn't simply grammar, but rather that language is fun, creative and challenging.

I. Student Writing Got You Off the Wall? Then, Show Them How To Write Off the Graph.

How many of you in reading student themes have come across those papers which, while mechanically perfect, are also thoroughly tedious? On the other hand, the opposite extreme is represented by that individual who writes meaningfully and intelligently, but who also writes with such long, run-on sentences that the message is almost incomprehensible.

One teacher in responding to this problem tried a creative approach using the Fry Readability Graph. After assigning papers to her students, the teacher graded each paper; she also recorded the grade level on which each theme was written. This strategy was the proverbial "low blow" to those high school students who wrote perfect papers--on the 5th grade level.

At this point the teacher gave students copies of the Fry Readability Graph and showed them how to use it. She pointed out the two things which operated to make a story more or less mature; namely, sentence length and number of multisyllable words. To make a story sound more mature students had to learn to write longer sentences. Thus, students were taught to subordinate, combine, use appositives, etc. To increase the number of syllables in a given story, the students had to use longer words. This inevitably led to using references such as dictionaries or thesauri. Furthermore, the students began to use a far richer vocabulary with more colorful and exciting words.

At the end of her three week experiment the teacher found that Johnny, a high school student who had turned in a "perfect paper" written on the 5th grade level, was now able to turn out a piece of writing written on a college level. Not only did this teacher succeed in showing students how to develop writing skills, but also she taught her students important reading skills, i.e., using references, developing vocabulary, and reworking a given passage from one level of writing to a higher level of writing.

It should be noted here that there are those purists who would argue against artificially inflating the length of sentences and words. Nonetheless, I feel that there is a place for learning to enrich one's writing style by varying sentence structure. If one can deftly utilize such grammatical constructions as subordinate clauses, phrases in apposition, infinitives and the like, that individual will have the tools to write rich and varied prose.

With regard to polysyllabic words one can learn to choose words which have precision and color. One can also be ridiculous. For instance, if one says:

The bovine ungulate elevated itself over the celestial luminary.

instead of saying:

The cow jumped over the moon.

then that person has clearly reduced his or her prose to an absurdity. On the other hand, however, if a student learns to use "the fastidious lady" instead of "the nice lady" or "the agreeable gentleman" instead of "the nice gentleman" he or she is clearly enriching his vocabulary as well as his prose. Furthermore, he might also learn to think with more precision by forcing himself or herself to focus accurately on a given mental image in order to express just what needs to be said.

II. Poetry--The Richest Art.

It is generally acknowledged that one of the most enjoyable activities for young children is listening to poetry, song and verse. Yet, by junior high school these same students dislike poetry intensely, referring to it as "sissy" or "dull" or "too difficult." Since poetry is one of the richest forms of art, as well as one of the most difficult art forms to experience fully, it seems imperative for the teacher of literature to use poetry often and wisely in order to prevent this teenage "turn off."

Several educators have developed interesting and effective techniques for the teaching of poetry. For instance, Herber developed an excellent basic model for reading and reaction guides which teachers can use to provide a structure for the discussion of poetry in small groups. (O'Brien and Schwarzberg, 1977) Among other things, Herber's guide provided for comprehension at the literal, interpretive and applied or creative levels. Since time and space are limited here, the reading and reaction guides for poetry have not been reproduced. (However, the reference showing this guide and how it was used is included in the bibliography.)

Meanwhile another approach in "Integrating the Teaching of Reading and Literature" was offered by Alan Chesler. Although Chesler used this approach with secondary students, his approach could certainly be adapted to the elementary level. "The first step," said Chesler, "is to choose appropriate poems. Those poems chosen for a class must be understandable, they must be able to be felt (experienced), they should have compelling visual images and they should have sound appeal."

Once several poems are selected using the above criteria, the activities chosen to be presented with the poem are begun. Chesler used the following activities for the study of a given poem:

1. Association--The student writes out word associations to certain key words in the poem, before they have heard the poem. Then the students share and compare their responses.

2. Definition--Vocabulary words are looked up in a dictionary and defined.

3. Spelling--Vocabulary words are presented for spelling.

4. Background Information--Any necessary background information is presented.

Once the preliminary activities are accomplished, the students are ready to approach the poem. Here, certain reading skills are introduced such as surveying (skimming) the poem. While skimming the poem the student notes what is visually apparent in the poem. For instance, any or all of the following questions could be asked:

1. Does the poem seem unusual?

2. What is visually apparent in the poem?

3. Does the poem have a pattern, or is it free flowing?

4. Does the poem have a rhyme scheme or is it unrhymed?

Those are just a few of the questions that can be asked after the initial skimming step. Depending on the poem, many other questions may be appropriate.

Next, each student reads the poem to himself in order to gain an understanding of the poem at a literal level. After this, given students read the poem aloud. The thinking here is that each of these various oral readings will provide for a number of interpretations.

Finally, the critical reading stage is reached. It is during this stage of reading that inferential comprehension is elicited. Of course, the level of difficulty of this inferential comprehension will vary with student abilities. During this time, students are free to discuss their reactions to the poem with one another as well as with the teacher. Last, the students reread the poem silently, after which they are given some quiet time to reexperience the poem.

Here it might be well to note that this kind of approach is one that can be used at all grade levels with students of many different abilities. However, as with most ideas for the classroom, each teacher, in a sense, becomes a creator as he or she adapts the general guidelines to a procedure which fits the needs of his or her own students.

One last caution is merited on this subject. Not all poetry need be serious, for poetry IS great fun! Reading poems that have beautiful sounds or funny lines or crazy words are all great fun and should be used often. It is with much exposure to these kinds of poems that students experience the sheer joy of hearing and reading their language. In summary, if it sounds good, read it!

III. Playing It Like It Is.

Simulation-games originated in the World War II years when high level military personnel developed the so-called "Pentagon War Games." Basically, what these war games consisted of was devising a situation that simulated reality. From this beginning, there evolved simulation-games used for the classroom. The definition of a simulation-game then is as follows:

> Simulation-games for the classroom are replications of a real environment that call for participants to take action and make decisions as if they were actually operating in that environment.
>
> Lynn Troyka

Lynn Troyka developed and used a group of simulation-games in the English classroom for her doctoral dissertation. Troyka's study utilized both control groups and an experimental group. After the study was completed, Troyka measured the effect of simulation-games on the students' expository prose competence. Her findings were highly significant. Writing done in the experimental group showed increased skill in reasoning, greater clarity of style and greater complexity of development compared to the control groups.

Using her dissertation as a basis for a book, she published Taking Action: Writing, Reading, Speaking and Listening Through Simulation-Games. In the book, she presented six simulations, all of which were on highly interesting subjects; i.e., Women on Patrol Duty, Population Control, etc. Each of these games requires the students to read, to listen, to take notes, to speak on his/her chosen topic and to arrive at decisions based on presentations of simulation participants. Thus, all of the Language Arts skills are required for the students to participate fully in the simulation. The fact that the simulations are built around controversial subjects piques student interest and makes for involved, serious writing. Additionally, if one should want to continue some activities after the game has been played, such as composition writing, research, etc., there are many such support materials and ideas given at the end of the book. The key thing to remember with regard to simulation-games is that again one needs to adapt freely in order to meet the needs of various classes.

IV. Friday Afternoon Before Vacation and Other Emergencies.

Most of us are familiar with the phenomenon of the "horrible, terrible, no-good, very bad day," to borrow a phrase from author Judith Viorst. Somehow things just don't work. The students are noisy; there are numerous interruptions; the noise level gives promise of impairing hearing, etc. Perhaps that is the time to pull out something special from your bag of tricks, something that your students have never seen before.

For instance, The Mammoth Book of Word Games offers word games of every kind and variety on just about any subject under the sun for just about any age group under the sun. Furthermore, many of the word games can lead to highly motivated work on using reference books. (Incidentally, if my experiences are a true guide, this is one of the hardest skills to teach as well as being the one hated most by the students.) My nine year old daughter and I have spent many pleasant hours on such games as "Mammal Menagerie," "Of Cabbages And Kings" and "Native Habitat." And, after each game, we inevitably ended up searching the dictionary, atlas or encyclopedia for answers, pictures or anything else that pertained to the word game just done.

Other books that might be just the thing to hold in reserve until the right moment are The Kids' Stuff Series, Cornering Creative Writing and The Whole Word Catalogue, Volumes I and II. The Kids' Stuff books state as their purpose "to motivate, to reinforce and to enrich ongoing language learning." The various games, exercises and other experiences are categorized into five major areas: reading, speaking, listening, spelling and writing. Furthermore, the activities included in the books were developed with an eye toward offering plans that can be adapted to learning centers, independent studies, diagnostic and prescriptive programming and student tutorial plans.

The Whole Word Catalogues, published by the Teachers and Writers Collaborative, were the result of a fortunate collaboration of teachers and professional writers. The ideas presented initially were geared to help those inner city students who "were writing with great difficulty, either with no confidence, little personal success, or rarely with any pleasure." (Whole Word Catalogue, p. 5.) Thus, many of the experiences and activities are "ice breakers" or "pain relievers." The Catalogue makes no claim to sequencing materials, nor does it suggest that it be used as a curriculum.

The Whole Word Catalogue does offer a whole spectrum of activities from poetry, to puns, to palindromes, to plays. The educator should find in the Whole Word Catalogues a compendium of creative ideas useful to all those dedicated teachers who are interested in eliciting their students' best.

Conclusion

Finally, it is important to remember that teachers will get what they expect. If they expect great things from their students, they will get great things. If they don't expect much, that's all they'll get. So, if Language Arts begins to become "The Way It's Spozed To Be" it is time to reevaluate your goals and your program. Language Arts evolves continuously; it can't be frozen in a formula.

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TEACHING CREATIVE READING

THROUGH MUSEUM EXPERIENCES

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The concept of creativity enjoys a certain vogue in educational circles! The field of reading is no exception. Teaching students to read creatively is a real challenge to our schools. Using experiences in a museum is one way to meet the challenge.

Although the word "creativity" is used often, it seldom means the same thing to two different people. It is particularly difficult to understand how a person can read creatively since reading is a receptive mode of communication and creativity seems to imply output. However, Torrance clears up this problem when he defines creative reading in his book, Gifted Children in the Classroom:

> When a person reads creatively, he is sensitive to problems and possibilities in whatever he reads. He makes himself aware of the gaps in knowledge, the unsolved problems, the missing elements, things that are incomplete or out of focus. To resolve this tension, so important in the creative thinking process, the creative reader sees new relationships, creates new combinations, synthesizes relatively unrelated elements into a coherent whole, redefines or transforms certain pieces of information to discover new uses, and builds onto what is known.

Henry (1974) has outlined three stages in learning to read creatively which he calls concept development. The first stage is learning to compare. At first, comparisons are made from direct experience. Next, comparisons can be made within a literary genre--such as comparing of fables. The second stage is learning to establish relationships between poems/stories and a concept such as courage or bravery. The third stage, which comes closest to Torrance's concept of the accomplished reader's creative reading, is to learn to invent a set of relations among several separate works and synthesize unrelated works into a coherent whole. The structure of relationships is what is newly created.

With the idea of teaching creative reading, the Summer Staff of the George Washington University Reading Center planned a reading enrichment program for a group of academically talented junior high students. Because of the maturity level of the students, Henry's second stage in developing creative reading was emphasized, although the students were encouraged to make comparisons from direct experience as well. The principal goal was to teach the students to relate a number of readings and experiences to a single concept. It was recognized that creative reading is not done in isolation from writing, speaking, first-hand experiences, other concepts, and relationships with other reading; therefore, the program was engineered to be a union of these. (Henry, 1974)

There were three components to the program: museum, reading, and creative drama experiences. The program was taught by a team of three, each with expertise in one of the three fields.

Museum Experiences

The museum experiences provided the focal point for the program. Just the mention of a visit to the museum aroused interest, excitement, and curiosity among the students. As every teacher knows, the prospect of a field trip outside the four walls of the school is anticipated with relish by all--teachers and students alike. It means doing something different. The novelty effect was powerful for the first museum visit. In addition, going to the museum provided an action oriented attitude toward learning in contrast to the usually passive sedentary mode of most reading assignments. The students seemed to be reaching out for knowledge in a literal sense.

The concept that was developed throughout the three week program was "landscape." This tapped the students' interest in their immediate environment. It seemed to be an important concept in dealing with a major social problem of our day because "understanding the raison d'etre of physical environment is a necessary prelude to improving it." (Prologue to the Signs and Symbols in the American City Exhibit, The Renwick Museum 1976.)

Since Washington, D. C. has a plethora of museums, two exhibits in two different museums were chosen which were appropriate to the development of the concept of landscape. The Renwick Museum had an exhibit on the Signs and Symbols in the American City which attempted to survey the pluralistic and aesthetic foundation of American cities and suburbs and focused on the 20th century commercial strip and the suburban sprawl. The Corcoran Museum featured landscape and genre paintings of the 19th Century. Between the two exhibits, the concept of landscape was given breadth to include the modern American city landscape and was given depth to include the dimension of time.

The criteria for the selection of museums were propinquity, topic of interest and importance, absence of excessive crowds, and other special helps that might be available to use in the museums. Propinquity was particularly important because if a museum was to be of maximum help in concept development it had to be available more than once.

Each museum visit was carefully planned in three steps: some type of preparatory activity, a specific task assigned at the museum and a follow-up activity. The preparatory activities were aimed at increasing motivation. Some were related reading experiences to enhance the meaning of the visit. Some were directed at increasing the students' ability to observe carefully. For example, before going to the Renwick the first time, the students were asked to list things they might see on their own street. These lists were discussed and compared.

The museum assignments included finding answers to specific questions, lectures on specific paintings and techniques, and individual exploration for producing a self-guide or orally guided tour. A self-guide is a written set of instructions or questions that the museum visitor can use by himself, but that directs his attention to specific aspects of the exhibit. On the first visit to the Renwick, the students were assisted by a self-guide which directed their attention to the streets and houses of the exhibit and asked them to compare some architectural features with their own previously made lists.

The purpose of the follow-up activities was to help the students organize and structure their experience in order to help them remember what they had seen. After the first Renwick visit, the students read and compared the views of landscape in Sandburg's "Chicago" and Lowell's "Meeting House Hill" with each other and with the Renwick Exhibit's view.

Reading Experiences

The reading experiences were designed to contribute to the development and expansion of the concept of landscape. In addition, four reading skills areas were developed: use of imagery, vocabulary, inferential skills, and use of symbolic language. For example, when Sandburg's poem "Chicago" and Lowell's "Meeting House Hill" were read in the same session, they stimulated mental images of city landscapes, country landscapes, and seascapes. The strong, virile images of "Chicago" were action-oriented while the scenes of serene beauty in rural New England were filled with wistful longing. The feeling of passivity of "Meeting House Hill" was contrasted to the feeling of power and movement of "Chicago." The expansion of the idea of landscape from a narrow view of pretty rural scenes to include a variety of environments was accomplished by reading these two poems and by the visit to Signs and Symbols of the American City.

Suburban sprawl was highlighted as a facet of landscape in the lyrics of the song, "Little Boxes," by Malvina Reynolds. The monotony and sterility of a tract development is the theme of the song. This was contrasted with the infinite variety of foliage and scenery of New England autumns that Steinbeck writes about in the excerpt from Travels with Charley.

Walt Whitman's "Mannahatta" provided one view of the city and was contrasted with the view of Fripp and Sinfield in "Pictures of a City." Whitman sang a rhapsody, while Fripp and Sinfield produced cacophony by juxtaposing harsh, hard, brash, cold, violent words to indicate that they thought the city a cold, concrete hell. Whitman wrote:

> A million people - manners free and superb - open voices - hospitality - the most courageous and friendly young men,
> City of hurried and sparkling waters! city of spires and masts!
> City nested in bays! my city!

Fripp and Sinfield wrote:

> Concrete cold face cased in steel
> Stark sharp glass-eyed crack and peel
> Bright light scream beam brake and squeal
> Red white green white neon wheel.
>
> Blind stick blind drunk cannot see
> Mouth dry tongue tied can speak
> Concrete dream flesh broken shell
> Lost soul lost trace lost in hell.

Reading real estate advertisements in the newspapers and magazines to discover what the ad writers considered selling points was an exercise in inferential reading. The students were asked to read the ads to find out what was valuable to people in different areas. They found that ample space for living is valued almost everywhere. Easy commuting to cities is valued in the suburbs. Cultural and recreational opportunities are valued in the cities. Convenience to schools and shopping were widely advertised.

Along with the comparisons and development from the readings of the concept of landscape, some structured output was planned to encourage syntheses of the ideas discovered. The first activity was the production of two photographic exhibits on the themes "Uses of Space in the City" and "City Facades." The students took walking tours to take photographs of appropriate scenes or buildings. After the films were developed, the students arranged them in categories for display which would yield a coherent, meaningful message. They also constructed the appropriate backgrounds and labeling for the exhibits. The basic questions posed in the formulation of the exhibits were: What is it you are trying to get your viewing public to see? How can you best group your photos to show those ideas? What artistic, interesting things can you use to make your exhibit appealing?

For the second synthesizing activity the students became museum tour directors for a completely new (to them) museum exhibit. The students previewed the exhibit, planned introductory activities, conducted oral guided tours of the exhibit for the other students and teachers, and planned follow-up activities for the others. This enabled the students to consolidate much of what they had learned.

Creative Drama Experiences

The creative drama experiences served several purposes: review and rehearsal of ideas learned in the exhibits and in the readings, the opportunity for self-expression through movement, relief from sitting, planning and organizing presentations for the group, the achievement of self-assurance in speaking and acting before a group. Communication skills were taught through tape recordings of guided tours and videotaping creative drama sequences.

The students had the opportunity to make visible in dramatic action the contrast in feelings of Sandburg's "Chicago" and Lowell's "Meeting House Hill." They were able to observe the paintings in the Corcoran exhibit more carefully when they were planning to present dramas of what could have happened before and after the scene depicted in the painting or planning to make a tableau of a painting for others to guess.

The creative drama allowed spontaneous expression of the many ideas that were being learned. The dramas gave form and concreteness to many views and scenes that would have been immediately forgotten otherwise. All the students were able to participate equally--from the youngest to the oldest, from the most skilled verbally to the least. All had a great time performing. It was a totally enjoyable activity and everyone looked forward to it each day.

Probably one of the most frustrating experiences for a student (or teacher) is to read a passage in a book or newspaper and realize five minutes later that he has no idea what he has just read. Most of us do indeed "read at our own pace, finish with an inchoate lump of meaning unformed by language, and then go on to other reading or non-reading activity. Only when we try to communicate the ideas of the passage to ourselves or to others or to relate it to another work or passage do we determine what meaning is really ours." (Henry 1974) Using museum experiences allows one to tie reading into the development of a concept of a set of relationships.

Almost every city, town, and village has a museum of some kind. Large cities often boast of several. What a wealth of well organized material many of these museums offer on a wide range of topics! Since creative reading is not taught in a vacuum, a museum provides the opportunity for a total experience in learning where reading experiences become meaningful.

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HELP THEM TO READ CONTENT MATERIALS -

PRINCIPLES AND STRATEGIES

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> Reading is the culmination of all of the language skills learned from birth. It combines the mechanics of word recognition with comprehension skills so that the reader can understand what he/she has read. Each person must learn to read independently, but the task can be made more pleasant through social interaction. It does not happen once in a lifetime, but is a continuum of developmental processes to which the reader brings all of his/her life experiences. It should be an activity the reader can enjoy as well as a means for learning about his/her world.*

We've heard the cries "Back to Basics" and "Every Teacher a Teacher of Reading." What do they mean to content area teachers, especially in high schools? Don't students learn to read in the first three grades and thereafter read to learn? If the elementary school teachers did their job well, wouldn't it eliminate any problem in later grades?

There are no easy answers, but psychologists and reading authorities agree completely on the following statements:

1. Reading is a process rather than a subject and it is inextricably interwoven with thinking.

2. Learning to read in a subject matter, or content area, is an integral part of the acquisition of knowledge in that area.

3. The transfer of skills or learning does not automatically occur from one subject area to another.

First, let's consider the statement that reading is a process, and as such cannot be separated from thinking. There are various categories of skills involved in the development of reading. Phonetic analysis deals with the sounds of individual letters or groups of letters that form words. Structural analysis is concerned with the structure of words--parts such as root words, prefixes, suffixes, contractions, plurals, etc. Comprehension skills cope with understanding the printed word in

*Philosophy of Reading. Moss School, Metuchen, N. J., 1977.

context. They range from literal to inferential comprehension, with all of the gradations between. Study skills are those in which a reader engages to use the parts of a text, to use reference materials, to interpret visuals, and to organize and evaluate what has been read. Reading rate falls into this category as well as methods used to approach different kinds of materials. Yet a student may possess most of these discrete skills and still not be able to read the textbook effectively and efficiently.

Because reading is a complex process, the skills mentioned above must be coordinated, must be used in unison, for a student to get meaning from print. If a reader very carefully scrutinizes each word, he/she may never acquire fluency or understanding appropriate for the material. On the other hand, if he/she fails to preview material properly before reading or studying it, or carelessly skips over much material, time will be wasted and the meaning will be lost. There must be a happy balance in utilizing reading skills for real reading with understanding to occur.

The second statement, that learning to read in a content area is an integral part of learning that subject supports the "every teacher" theory. Reading literature requires a different mind set than reading social studies containing maps and graphs which must be interpreted. It is different from the compactness of science or math with their frequent symbolic reference. It is not like reading a foreign language with repeated use of the glossary. It differs from reading a recipe, or a pattern guide, or a service manual, or rules for a game. It is not like reading music or techniques in art. Each subject must be approached in a manner unique to that subject. Unless the content area teacher is aware of the best techniques for his/her area, the students will not get the most out of their reading time.

The fact that skills learned in one area are not automatically transferred for use in another area is not an absolute. Apparently practice in varying reading rate does carry over into types of material other than those used for practice. But other skills, such as previewing, note-taking, reporting, etc. are best taught in each subject, with the materials the student will be using in that subject.

Is there time to teach all of this reading as well as the subject matter? There isn't time not to! Time spent on essential reading skills will reap the reward of students who are more efficient readers, who grasp the meaning of what is presented, and who read more widely in the subject area as a result.

There are relatively easy ways to find out if students have the necessary background to handle the text. One way is through an Informal Suitability Survey (ISS). It works like this:

1. Type up and run off a 200-500 word passage from the text you plan to use, choosing from a fairly typical part of the book.

2. Write a motivation statement for the passage to provide students with a purpose for reading. It should consist of two sentences. The first sentence should make a general statement about the passage to prepare the reader for it. The second should ask a question or issue a command: it should tell the reader what to look for.

3. Prepare 5-10 questions on the passage, utilizing the comprehension levels of Bloom's Taxonomy of Educational Objectives as a guide: knowledge, understanding, application, analysis, synthesis, evaluation.

4. Administer the ISS, giving students as much time as they need to complete it. Note which students take an unusually long time to finish.

5. Score the ISS. Appropriate comprehension should be 70% or better. If some Survey results are questionable, give the student another one to read silently, answer orally, and to then read orally. The oral reading may point out specific difficulties with word analysis.

6. You may discover that the text for your course is too difficult for a number of students. In order to meet the needs of the students, you have the following options:

   a. Locate another, easier text covering the same general concepts, to be used as an alternative text. You will have to learn how to use a measure of readability to be sure of the reading level.

   b. Borrow books from the library to correlate with the text. These should be of varying readability.

   c. Tape portions of the text that you wouldn't want anyone to miss. Even capable students can appreciate a well-read speech or other appropriate material.

   d. Rewrite the material containing concepts vital to the unit on an easier level. This can generally be done by shortening the sentences and replacing some of the more difficult words with easier synonyms. Check your rewritten passage carefully to be sure it does not "talk down" to the students, but simply presents the material in a more easily understood fashion. Rewriting is extremely time-consuming, but the passages can be recycled the next time you teach the course.

When you have materials available for all of the students in your class, including those for whom the text is too easy as well as those for whom it is too difficult, you are ready to introduce the lesson or the unit. You have composed a list of goals and objectives and will keep them in mind throughout the unit. While some students are intrinsically motivated and all the teacher need do to get them to complete assignments is to make the appropriate materials available, there are others who need a great deal of preparation, encouragement, and even badgering. Therefore, a teacher should always set specific purposes for reading.

Purposes should reflect the goals and objectives that have been established for the lesson or unit. The purpose may be established through an intriguing question, a comment on the material which is designed to create interest, or some background to make it more comprehensible. Whatever the purpose given, it is primarily intended to get the student to wonder about the assignment enough to decide to read it.

In some instances there may be technical terms, words with multiple connotations, foreign phrases, or other difficult words whose understanding is vital to comprehension of the lesson. If these are defined adequately in context, leave them alone. The alert reader will learn the meanings through his/her reading. Class discussions or exercises using the words should make them clear to the rest of the students. If the meanings are not spelled out in the text, it will be necessary to preteach them.

There are more interesting ways to learn definitions of words than by being presented with a list of words and looking them up in the dictionary. First, words should be presented in context, that is, in phrases or sentences so the student can see how they are used. They should be pronounced as well as written on the board or printed on a study sheet, thereby utilizing two sensory techniques. If their meaning can be best explained through a picture (snow-covered peaks), a movie film (assembly line), a record or tape (strings vs. woodwinds vs. brass), an object (Phillips screwdriver), a demonstration (beat until fluffy), or an experiment (counterbalance) by all means do so. No one ever said that definitions had to be in words. Having been taught the words, your students will learn and remember them best if they use them, so be sure to use them in discussions, in worksheets, and in exams.

Asking students to "read the chapter and answer the questions at the end" is not the worst assignment in the world. After all, the questions were carefully thought through by well-paid writers and editors. Could an ordinary classroom teacher improve on that? Definitely and emphatically, yes! Those questions at the end of the chapter were created for a general audience, not with <u>your</u> students in mind. Only you can adapt an assignment to their particular needs and abilities.

This implies different assignments for different students - individualization. It is not necessary to create a separate assignment for each student, but individual differences should be accommodated through a variety of levels and choices of activities. There are innumerable ways by which a student can demonstrate his/her grasp of the major concepts and important details of a lesson. Answering questions is only one. Almost every unit of study in almost every subject lends itself to some form of creative expression. Creative writing produces reports, essays, stories, poetry, drama, scripts, captions. Artwork and crafts include making models, drawing or painting pictures, posters, and murals; photography, film making, including accompanying taped commentary, dioramas, puppets. There is no end to ways students can respond to what they have read, and most of them lead to more reading, the ultimate goal.

With so many different kinds of work coming in, how can you determine if all of the students really got what you were trying to teach? Have they developed broad concepts based on the input they received? To find out, go back to the goals and objectives you set up at the beginning of the unit. They should form the basis for evaluation. Examination items may be of any kind - short answer, essay, multiple-choice, sentence completion, true-false - but they should test higher levels of cognition as well as the facts presented. Again, Bloom's Taxonomy can serve as a guide. It is not always possible to create a question from each level, but a good examination will include most of them.

Is teaching students how to read the job of secondary school teachers? It is for the teacher who is concerned that the students get the most from their reading. It is for the content area teacher who is convinced that reading is a lifetime developmental process. It is for the subject matter teacher who realizes that each subject requires specific skills and methods of approach. It is for the teacher who believes that students are at least as important as content and teaches as though he/she believes it.

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PRE-READING - AN ESSENTIAL STUDY SKILL

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If I had to choose one skill to teach in order to help students to read more efficiently, that skill would be pre-reading - sometimes called previewing, surveying, overviewing or ... "A rose by any other name..." Many study skills formulas have been developed since Francis Robinson devised SQ3R in 1941, and all of them have included a pre-reading step.

Why is pre-reading so vital? Well, let's consider writing from the writer's point of view for a moment. Whether he writes well or poorly, the writer wants, above all, to communicate with his readers. He tries to organize his material effectively in order to accomplish this end. The basic organizational strategy most frequently used for expository prose is introduction, development, conclusion. Hence, the formula instructors frequently give to budding authors--"First, tell them what you're going to tell them, then tell them, then tell them what you told them." Pre-reading, a study technique which is applied before reading, can help the reader to use the writer's organization to increase comprehension and retention of material. Like many new habits, it may seem bothersome at first, but once established, pre-reading makes reading much easier by giving the reader the following advantages:

Pre-reading provides a framework into which the reader can fit details during later, more thorough reading.

Pre-reading helps the reader to define his precise purpose for reading.

Pre-reading provides an advance sampling of style and content. This sampling makes it possible for the reader to estimate his study time and to maintain the most efficient rate during the more thorough reading.

Pre-reading can show the reader that he can skip parts of a selection if the content is familiar to him or irrelevant for his purposes.

Pre-reading allows a reader to read the selection more critically since it makes clear to him the writer's overall point of view and conclusions in advance of the thorough reading.

Now that I've given you my sales pitch, we come to the "how to" of pre-reading. Students can learn to pre-read on three levels--a book, an entire chapter, and a short selection or section of a textbook chapter. To pre-read a book, the reader should sample the title page, preface or introduction, table of contents, structure of a typical chapter, index. In order to encourage effective pre-reading of books, the teacher might distribute a questionnaire such as the following along with new textbooks.

KNOW YOUR TEXTBOOK

1. Who wrote this book? What are his/her qualifications?

2. When was the book published? Is this important?

3. Read the preface. Why did the author write this book? Does he/she have a point of view on the topic?

4. Read the table of contents. How is the book organized?

5. Choose one chapter to look at. How is it organized? Are there headings? Subheadings? Diagrams or other graphic aids? Chapter summaries? Other study aids?

6. Does the book have a glossary?

7. Does the book have an index? When will you use this?

8. Are there any appendices? What kind of information do they contain? How can this information help you?

9. Now that you have pre-read the book, ask yourself these questions: What do I already know about this subject? What can I expect to learn from this book?

A thorough teacher guided pre-reading of a textbook should help to make all subsequent reading more meaningful for the students.

Content area teachers can also guide students through pre-reading textbook chapters. When pre-reading a chapter, the students should read the following: title, introductory paragraphs, headings and subheadings, concluding paragraphs or chapter summary. They might also note any graphic aids, the glossary and the study questions, if these aids are provided.

Have students read the title and then ask them to speculate about what the chapter contains. This can be an excellent motivational strategy since the student can now read further to find out whether their speculations were correct. Why the introductory paragraphs?

Remember, this is where the author "tells you what he's going to tell you." Key terms may also be defined in these first few paragraphs. The headings and subheadings provide students with the "skeleton" of a chapter. After reading these, they can ask themselves how the chapter is organized. From general to specific? Specific to general? Chronologically? Spatially? Other? Also, why did the author choose this particular organization?

The chapter summary is an important part of pre-reading. Too many students read textbook chapters as if they were mystery stories, beginning with the first word and unwilling to take the suspense out of their reading until they reach the last word. This is not an efficient approach for practical prose. The chapter summary is, of course, where the author "tells you what he told you." It may contain his conclusions, or restatements of the main points, very important information to have before a thorough reading.

Teachers may have to do some "selling" in order to convince students that pre-reading is worth the time. Try timing the pre-reading. After you have guided students through pre-reading a few times, have them pre-read a chapter on their own in class. Ask, "How much can you learn about this chapter in five minutes?" Call time when five minutes is up, and have the students tell you what they now know about the chapter. They will be amazed at how much information they have gained during this short period of time. Pre-reading is, after all, a scientific kind of speed reading. We speed read fiction using random scanning patterns a la Evelyn Woods since we have no clues about where important events may occur. However, in expository prose, we know where important ideas are most likely to occur, and we take advantage of the organization of the material by pre-reading.

After students have finished pre-reading, present these four questions:

1. What is (are) the main topic(s) covered?

2. What is the sequence of development?

3. What is my purpose in reading this?

4. Given this purpose, what specific information will I look for while reading?

In order to answer these last two questions, have students develop some questions of their own which they should be able to answer after reading this chapter. These questions should be comprehensive, not of the, "Where was George Washington born?" variety. Students may need considerable help in developing purpose setting questions at first, but it is essential that they learn to do so. Numerous studies have

demonstrated that readers who read with "advance organizers," i.e., well-defined purposes, comprehend and retain better than those who have no such purposes.

How about pre-reading a section of a chapter or a short selection or magazine article? To do this the student reads the first paragraph and the first sentence of each of the other paragraphs in the selection. Try this on the following selection. The parts you should pre-read have been underlined for you. Since pre-reading should be quick, I'll give you one minute.

ENGLISH

A GUIDE TO GOOD USAGE

. . . Like our choice of clothes, our choice of words is a part of our behavior subtly controlled by our sense of what others will consider appropriate and acceptable. . . .An expression which is appropriate in one situation may be quite out of place in another. As educated people, we wish to be able to adjust our behavior to the demands of various situations.

Levels of usage

Levels of usage refers to the acceptability of words and constructions among different groups of people under different circumstances. We recognize two major levels of usage, nonstandard and standard, and we distinguish three varieties of standard English.

Nonstandard English is characteristic of uneducated people who do little reading and writing and who associate chiefly with other uneducated people. Examples of this level are such expressions as ain't, busted, real good, them boys, and can't hardly. It is seldom seen in writing because the uneducated write little. Occasional examples are found in literature when writers deliberately try to imitate uneducated speech for humorous or dramatic effect. Some dictionaries label nonstandard expressions as illiterate or vulgar. . . .

Standard English is the usage of educated people accustomed to reading and writing. It is the natural language of those who have formed their speaking and writing habits through reading widely and associating with others who read. Professional people, those who have studied for many years in order to win the knowledge required in their work, have generally acquired the habit of using standard English. Because the language of the educated is not the same for all situations, standard English includes informal, formal, and general varieties.

Informal standard English is used by educated people in conversation and in most writing. It is appropriate in friendly letters, magazine and newspaper writing, popular books, talks to most kinds of

audiences--in short, for nearly all communication. Some expressions which are standard in conversation are less likely to occur in informal writing, which is somewhat more conservative than speech. Dictionaries label colloquial those expressions which are more suitable in speech than in writing.

The formal variety of standard English is used wherever particular dignity or beauty of expression is appropriate. It is used in speeches and addresses for formal and solemn occasions, in scholarly and technical writing intended for readers in the professions, in textbooks for advanced students, in formal invitations and social notes, and in legal, governmental, and business documents. Formal usage is more conservative and changes less rapidly than does informal English. It avoids contractions, shortened words, colloquialisms, most abbreviations, and all slang. Its sentences tend to be longer than those of informal writing, and it employs a more exact and extensive vocabulary. It is careful not to omit relative pronouns, it repeats prepositions before objects in series, and it maintains parallel structure more commonly than does informal writing. It also makes greater use of figures of speech and allusions to literature and history. It assumes a high level of education and culture on the part of its readers and listeners.

Now see whether you can answer the four questions I listed. What is (are) the main topic(s)? This selection is about the various levels of English usage. These are nonstandard and standard, which includes informal and formal English. What is the sequence of development? The writer proceeds from least formal to most formal. What is my purpose in reading this? You might have different answers for this one. One purpose might be to find out more about these various types of English. Given this purpose, what specific information will I look for? With the purpose just mentioned, you will want to know who speaks the various kinds of English, on what occasions each kind is appropriate, and what characterizes each kind. Having pre-read this selection and developed purposes for reading, you could now go back and read this selection rapidly, beginning with the second paragraph (remember you already read the first) to find the answers to your questions. Or, if your purpose was to find information about only one of these types of English usage, you would now know exactly where to locate this information.

Doing exercises such as those suggested is a good way to encourage students to use this essential study strategy, pre-reading. Making this skill a part of his study technique should help the student begin to apply the processes discussed earlier - selection, organization and association - which are so vital to effective study.

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EXPANDED DIRECTIONS FOR WORKING READABILITY GRAPH

1. Randomly select three (3) sample passages and count out exactly 100 words beginning with the beginning of a sentence. Do count proper nouns, initializations, and numerals.

2. Count the number of sentences in the hundred words estimating length of the fraction of the last sentence to the nearest 1/10th.

3. Count the total number of syllables in the 100-word passage. If you don't have a hand counter available, an easy way is to simply put a mark above every syllable over one in each word, then when you get to the end of the passage, count the number of marks and add 100. Small calculators can also be used as counters by pushing numeral "1", then push the "+" sign for each word or syllable when counting.

4. Enter graph with <u>average</u> sentence length and <u>average</u> number of syllables; plot dot where the two lines intersect. Area where dot is plotted will give you the approximate grade level.

5. If a great deal of variability is found in syllable count or sentence count, putting more samples into the average is desirable.

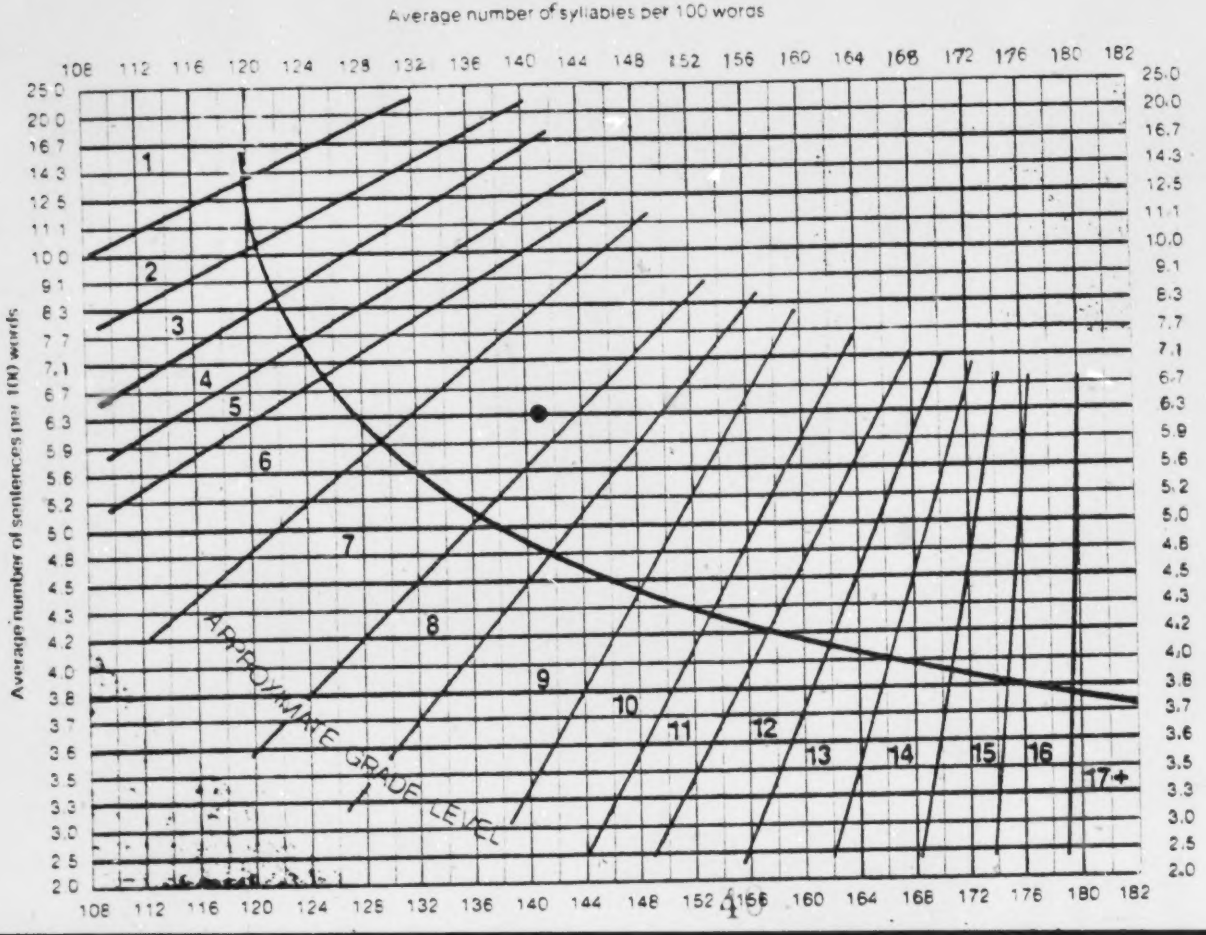
6. A word is defined as a group of symbols with a space on either side; thus, "Joe," "IRA," "1945," and "&" are each one word.

7. A syllable is defined as a phonetic syllable. Generally, there are as many syllables as vowel sounds. For example, "stopped" is one syllable and "wanted" is two syllables. When counting syllables for numerals and initializations, count one syllable for each symbol. For example, "1945" is 4 syllables and "IRA" is 3 syllables, and "&" is 1 syllable.

FOOTNOTE: This "extended graph" does not outmode or render the earlier (1968) version inoperative or inaccurate; it is an extension.

GRAPH FOR ESTIMATING READABILITY – EXTENDED

by Edward Fry Rutgers University Reading Center New Brunswick N.J. 08904



DIRECTIONS Randomly select 3 one hundred word passages from a book or an article. Plot average number of syllables and average number of sentences per 100 words on graph to determine the grade level of the material. Choose more passages per book if great variability is observed and conclude that the book has uneven readability. Few books will fall in gray area but when they do grade level scores are invalid.

Count proper nouns, numerals and initializations as words. Count a syllable for each symbol. For example, 1945 is 1 word and 4 syllables and IRA is 1 word and 3 syllables.

EXAMPLE:

	SYLLABLES	SENTENCES
1st Hundred Words	124	6.6
2nd Hundred Words	141	5.5
3rd Hundred Words	158	6.8
AVERAGE	141	6.3

READABILITY 7th GRADE (see dot plotted on graph)

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For further information and validity data see the Journal of Reading December, 1977.

IMPROVING MATH SKILLS THROUGH READING

by Aldona Skrypa
Madison Public Schools

A Rationale For Teaching Reading in the Content Areas

Considerable attention has been given to teaching reading in the content areas at the secondary level. It is now becoming a recognized fact that children at the elementary level can also benefit from instruction in the specialized reading skills pertaining to the various subject fields.

In the primary grades, the main emphasis of the reading programs is on learning and practicing basic reading skills, rather than on the ideas the materials contain. Comprehension is stressed even at the lowest levels, but at the early stages of development, the major purpose of reading programs is to provide for basic skills reinforcement and preparation for more difficult reading. The emphasis is still on learning to read. But children in grades three, four, five, and six do read social studies, science, language arts, and mathematics textbooks, as well as reference materials, for the purpose of gaining information from which they need to build concepts and generalizations. According to Karlin (1975), the children's purposes for reading informational material are not the same as for narrative materials; therefore, they must read them differently. Reading instruction, which is usually limited to helping children understand narrative and fictional writing, fails to take into account the difficulties children may experience when they read in the content fields.

In his doctoral dissertation, Kolczynski (1973) quotes Dechant as saying that in "mathematics, comprehension is not limited to the understanding of a story. It is not even limited to the understanding of one experiment. One concept is built on another, and mathematics can have meaning only on the basis of the understood meaning of the former."

Stauffer (1966) indicated that even if a child had mastered all the different words presented in all the basal series readers (at a given grade level), he would still need to learn at least one-half of the words presented in a mathematics class. This means that he would need to be prepared to deal with these words semantically and phonetically--structurally, in order to grasp and cope with arithmetic problems and discussions.

Strang and Bracken (1957) advocate that reading in each subject should be a part of the total developmental reading program. They list three aspects of the teaching of reading in every subject:

1. The general attitude or approach to the kinds of reading required in the subject.

2. The technical or special vocabulary of the subject.

3. Certain specific reading skills needed in the subject, as, for example, the reading of maps in social studies and reading of directions in the science project.

Eva Bond (1938) emphasized that, since children encounter new reading activities in each new subject at every level, it becomes desirable to provide specific instruction in the desired techniques and skills. She refers to a 1937 study which indicates that a significant relationship is found between skill in the work-study reading ability and achievement in mathematics.

Elden Bond (1940) pointed out the importance of reading comprehension in mathematical achievement. He also concerned himself with reading rates in the various content fields. Additionally, Elden Bond found that good achievement in one subject matter does not necessarily mean good achievement in another. He suggests that highly significant relationships would be found to exist between reading and achievement, if the reading measure were based upon reading within the content area.

Bond and Tinker (1973) point out two problems in relation to reading content area materials. First, one must be concerned with rate and comprehension in specific subjects rather than any general rate or comprehension. THe second problem concerns itself with the adjustment of reading rate to the particular requirements in each subject field. Versatility in the matter of speed is extremely crucial. Pupils need to be made aware of the fact that there is no rate that is proper for reading all materials. The appropriate speed should be determined by the purpose for which the reading is done.

According to Artley (1948), regardless of whether the child reads specialized subject matter through his researches in connection with a problem or whether he reads it in connection with assignments, the fundamental differences in the subject matter itself remain unchanged. He attributes these differences to the fact that each kind of material has its own body of concepts and vocabulary, its unique relationships, logic, form of presentation, and its distinctive assumptions and basic principles.

Herber (1970) presents a rationale for teaching reading in the content fields based on the premise that, with the contemporary explosion of knowledge, the teacher's role has undergone a marked change. The teacher's primary role is no longer to be a single source

of facts and knowledge. In a fast-changing world, knowledge about how to acquire and handle facts and theories is as important as possession of the knowledge itself. Bruner has said, "The goal of education is disciplined understanding; that is the process as well." If a teacher accepts this position, then he will be more than just an "information dispenser." Rather, he will emphasize the means of acquiring, interpreting, and using knowledge independently.

According to Harris and Smith (1972), content reading is receiving considerable attention these days. Professional organizations are discussing the topic and publishers are producing materials in the content fields. Harris and Smith define the term "content reading" as one that is used to denote expository writing concerned with information subjects and the evaluation of that information. They also feel that children need particular practice in reading content material. Children have been systematically introduced to the short story, and they spend most of their six years in school learning how to read short stories in basal readers. Teachers and students spend much time building short story vocabulary, analyzing plots, describing characters, interpreting actions, and applying morals to their own living. When it comes to the information subjects, most of the instructional emphasis seems to go toward recall of specific information and gaining concepts, but since this activity is not called "learning how to read," many teachers feel that no overt transfer of pedagogy is necessary. This attitude has caused a great deal of difficulty. The natural and relevant place for reading instruction to take place is in conjunction with literature, science, social studies, and mathematics.

All of the above studies and comments from authorities in the reading field seem to support a rationale for teaching reading in all of the content subjects. Before reaching a definite conclusion about the need to teach reading in the mathematics area, let us examine some of the research studies.

Research on Reading in Mathematics

Research on the role of reading abilities in mathematics may be classified into three somewhat overlapping areas: 1) mathematics and general reading ability, 2) mathematics and vocabulary, and 3) mathematics and specific reading skills. According to Russell (1960), studies dating back to the 1920's indicate positive correlations between reading ability and problem solving scores. These correlations have occurred in the .30 to .60 range, depending upon tests of arithmetic or reading that were used.

Since Monroe (1918) showed that a given problem could be stated in twenty-eight different ways, research workers have been interested in the relationship between reading ability and mathematical achievement. The resulting research has not always been clear on what relationship exists, often because of the confounding effects of intelligence. Intelligence is a recognized factor in mathematical and in

reading achievement. Monroe, using mental age derived from the Revised Stanford Binet Intelligence Test, found correlations from .56 to .65 with reading ability. Strang (1943) using the language score on the California Tests of Mental Maturity, found correlations between .80 and .84 with reading achievement. Brueckner and Grossnickle (1953) have specified the intercorrelations between intelligence and various arithmetic skills, with a low of .35 between I.Q. and computation and a high of .76 between I.Q. and vocabulary.

Recognizing that any apparent relationship between reading achievement and mathematical achievement might be spurious and really attributable to intelligence, Fay (1950) controlled chronological and mental age in comparing his groups. Working with good and poor readers, he found no differences in mathematics achievement between the groups with intelligence held constant. That reading achievement would not be related to computation skill with the effects of intelligence controlled is reasonable. Little reading skill is involved in finding arithmetical solutions to examples. The pupil need only read numbers and operation signs. This minimum reading knowledge required in computation would result in a very low correlation between reading ability and computation (provided that the effects of intelligence were controlled).

In a more recent study, Warncke and Callaway (1973) confirmed the above findings. Their investigation was designed to determine whether there is a relationship between arithmetic computational ability and reading ability for pupils of normal intelligence who have difficulty in reading. Subjects for this investigation were all second, third, and fourth grade referrals to the University of Georgia Reading Clinic, provided their I.Q. was at least 90. The 75 children who participated in the study had been referred to the clinic because of reading difficulties. All subjects were administered the WISC, the fundamentals section of the California Arithmetic Test and an Informal Reading Inventory. Mean scores were obtained for each grade level for each variable. Pearson product correlations were computed to determine if a relationship existed between the subjects' ability to read and do fundamental computation. These correlations were not significant. Correlations between grade placement and computational skill were higher than correlations between reading and computational ability. As a result of this particular study, one might conclude that, at the second, third, and fourth grade levels, the following might be a true statement: If Johnny can't read, he may be able to compute.

It is in the area of problem solving or mathematical reasoning that reading assumes greater importance. Problems are specified by words. In problem solving the subject must determine the question being asked, the information given, and the mathematical operations required. He must find this information through reading. Obviously, reading ability is involved at this point.

Balow (1964) designed a study to determine if the level of general reading ability is significantly associated with problem solving ability, and if a high level of ability in one of these areas will compensate for a low level ability in the other. In this study all levels of reading ability were represented, as well as levels of computational skill, in determining the effect of these factors on problem solving. A total of 1,400 sixth-grade students in a Southern California community participated in the study. The Stanford Achievement Tests, Intermediate, Form KM: Reading and Arithmetic, were administered in February. The grade placement in reading (average of the scores on the Word Meaning and Paragraph Meaning subtests) was used as the criterion of reading ability, grade placement on the Computation subtest as the criterion measure of computational skill, and grade placement on the Reasoning subtest as a measure of problem solving ability. The California Short-Form Test of Mental Maturity, Elementary, 1957 S Form, was administered and the total I.Q. used as a measure of intelligence.

The children were then classified according to level of computational ability and level of reading ability. Four levels of ability were used and were determined by the grade placement score. From these four levels, forty-six children were randomly selected and their arithmetic reasoning scores compared, using the analysis of covariance and controlling I.Q., to determine the importance of reading ability, computation ability, and interaction on problem solving. The following conclusions were drawn:

1. Reading ability does have an effect on problem solving ability. The findings of this study may differ from previous studies because the total range of reading ability was used rather than two groups defined as good and poor readers. Also, the effect of intelligence was controlled. The investigator suggests that the vocabulary and reading difficulty control of standardized tests (which differs from grade level texts) may actually minimize the effect of reading, and that if a more normal reading situation were employed, reading skill may prove to be even more important.

2. When I.Q. is not controlled, much of the apparent relationship between reading and problem solving ability is the result of the high correlation of each of these factors with I.Q. Controlling I.Q. drastically reduces the degree of relationship.

3. For a given level of computational ability, problem solving skill increases as reading ability increases, and for any given level of reading ability, problem solving improves as computation ability increases.

The findings of this study point out the importance of considering children's reading ability as well as computation ability when teaching problem solving skills. Both of these factors are important to the child if he is to deal adequately with verbal problems in his school work.

Studies in the area of the relationships between mathematics and vocabulary indicate a consistently positive and strong relationship between the two. Concepts of ordinal and cardinal numbers, of mathematical processes, of the number system, of weights and measures, of numerous uses of arithmetic, as in perimeter, profit, installment buying, and group insurance may pop into the elementary school child's mathematical activities. Knowledge of these specific concepts seems consistently related to problem solving abilities. Nila Banton Smith (1952) has stated that the "real troublemakers are the polysemantic words which mean something entirely different when used in different subject contexts. For example, consider the word check. In mathematics check may mean a blank form which one fills in and presents at the bank when he wishes to draw some money on his account. In science, the child may be told to check his experiment, meaning to prove it. In history he reads that a certain group of soldiers were able to check the enemy, meaning that they were able to stop the progress of an on-coming attack. While many children pick up these changed meanings incidentally, as they occur in different subject contexts, other children do not. The teacher who cultivates a sensitiveness in herself to shifts of word meanings from one subject to another and who takes the trouble to inquire into her pupils' understanding of these words in different contexts will discover that there is much confusion in the children's minds, and that it is very worthwhile to help them to understand these distinctions."

C. T. Johnson (1949) believes that vocabulary is the main factor in problem solving, ranking ahead of reasoning ability. In a study involving 598 seventh-graders, H. C. Johnson (1944) gave practice on selected arithmetic vocabulary for fourteen weeks. The practice included word drills, use of the dictionary, and keeping individual notebooks for difficult words. Mimeographed material supplemented the text. He found that the experimental group which had been given vocabulary practice made slightly higher gains not only in mathematical vocabulary but in problem solving which involved some of the words taught. Johnson concluded that training in vocabulary should be made an integral part of mathematical activities from the time the child begins formal work.

Vanderlinde (1964) conducted a study to determine whether the study of quantitative vocabulary would improve problem solving ability. In his investigation he involved all fifth-grade pupils attending the public schools of Bay City, Michigan, during the 1961-62 school year. On the basis of a statistical analysis of the data obtained in this investigation, the following conclusions were arrived at:

1. Pupils who studied quantitative vocabulary using direct-study techniques achieved significantly higher scores on a test of mathematical problem solving than pupils who did not devote special attention to the study of quantitative vocabulary.

2. The experimental method was equally effective with boys and girls.

3. The experimental method was more effective with pupils of average or above average intelligence than those with below average intelligence.

4. Effective vocabulary study can be made a part of the regular mathematics program without sacrificing pupil achievement in the subject itself.

Vanderlinde suggests the following curriculum implications based on the results of his study:

1. Vocabulary study should be made an integral part of the instructional programs in mathematics.

2. The study of quantitative vocabulary should begin in the primary grades.

3. Pupils should be provided with opportunities to use quantitative vocabulary in both written and oral communication.

4. Pupils should be provided with rich and varied experiences that will furnish a background for the new terms to be encountered.

5. Classrooms in elementary schools should be equipped with a variety of arithmetic aids to help clarify the meanings of quantitative terms.

6. Direct-study techniques should be used to teach the technical and semi-technical vocabulary in each of the content areas. Pupils who do not understand the technical vocabulary used in each of the content subjects will not comprehend many of the important concepts to be learned. The study of the technical vocabulary in mathematics cannot be left to chance but must be an integral part of the mathematics program.

Conclusion

There seems to be general agreement among researchers that certain reading skills are necessary for success in mathematics. The following four areas were found to be of significance:

1. General reading skills, including vocabulary;

2. Problem solving reading skills, including comprehension of the problem statement, selection of relevant details, and selection of the proper solution procedure;

3. Mechanical computation and a mathematical understanding of the concept of quantity, the number system, and important relationships;

4. A spatial factor, involving the ability to visualize objects and symbols in more than one dimension and to use mental imagery to clarify word meanings.

Obviously, reading is not the only factor in a pupil's success with mathematics. Certain intellectual capacities are also essential for mathematical achievement.

No doubt, textbook readability is also a major consideration in the child's mathematical success, because in many classrooms, textbooks are the only resource provided for mathematics instruction. Therefore, the vocabulary, both general and quantitative, the difficulty of nonverbal items such as symbols and graphs, should be evaluated carefully to insure that the material is suitable to the child's ability and grade level.

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TEACHERS OF ENGLISH AS AN OPPRESSED MINORITY:

A DECLARATION OF PARTIAL IRRESPONSIBILITY

by Josephine Goldsmith
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Teachers of English are too responsible for their own good. This irreverent statement is not lightly made. It is, rather, the product of years of consulting in secondary schools, helping subject teachers to develop plans to "teach reading in the content areas." When standardized reading achievement scores sink under the national mean; when students' reading and writing performance are clearly substandard; when parents dream of Harvard and cry for higher SAT's, teachers of English are tagged as accountable. Moreover, they usually accept the challenge. As teachers of English, we are easily persuaded that it is up to us to teach reading and writing skills which will generalize to all content areas, and to develop verbal ability to fit students for full professional and personal participation. To paraphrase Orwell's quip about equality, all teachers are responsible, but teachers of English are more responsible than others.

Perhaps it is time that teachers of English made decisions as to areas for which they can and cannot sensibly be held accountable. To assume full responsibility for reading/writing development is unrealistic for beleaguered teachers and perhaps for students as well. If we were to list all of the skills for which teachers of English are asked to take responsibility, how many realistically fall under their aegis?

The Skills List for English includes four general areas of reading/writing skills: Reading for Information, Critical Reading, Literary Reading and Language Study. This division represents one consultant's way of looking at the area of English/Reading skills. There are many other carefully developed skills lists with which teachers of English might want to become familiar. Some of these may be found in texts dealing with the subject of reading in content areas (Burmeister, 1974; Hafner, 1977), others in teachers' guides (Thomas & Robinson, 1976; Piercey, 1976) and student workbooks (Wiener & Bazerman, Cooper, 1977). It is highly recommended that teachers become familiar with a variety of these skills lists in order to decide which are most realistic and most relevant for their teaching situation.

Reading for Information

Reading for Information includes those areas necessary for basic literal reading. At this level we are not concerned with evaluating or criticizing information, but with gathering it efficiently. The question is not, is the writer's message of worth, but rather what did he/she say? Obviously, later attempts to apply critical reading skills will be useless if the original message is not gathered precisely and as fully as necessary for the purpose. Some basic skills involved in Reading for Information are shown under area I of the Skills List.

While it is reasonable to expect that some of these skills can be introduced in the English class, their application in subject areas soon becomes closely tied to learning within the discipline. The search for main ideas in paragraphs can be introduced in English class in a global approach, but the hunt for the "main idea" in biology or history becomes complex and elusive. A main idea in biology may be steps in a physiological process or abstraction of similarities in structure which form a basis for classification; in history, the aim may be to extract the writer's thesis and find supporting arguments. These tasks are little related to the search for the topic sentence or skimming headlines to extract an overview. Moreover, the teacher of English may not know what the "main idea" might be or where to find it in the tricky task of specialized subject matter reading. Clearly, information gathering skills can be introduced by teachers of English, but full development of these skills involves transfer of training into subject matter classrooms.

Critical Reading

One of the highest aims of education is to develop students into critical users of information. Some of the traditional critical reading skills are listed under area II, items A through F. That many of the traditional critical reading skills have a strong relationship to literature may simply show that teachers with literary backgrounds are those who tend to write lists of these skills. In this list, items G and H have been added to apply to the reading of history. Many more could be added to apply to the areas of sciences, mathematics, related arts, business, physical education, ad infinitum. Confining critical reading to the English classroom may impede student progress in dealing with other disciplines in an evaluative way. Teachers of other subjects need to be encouraged to develop lists of critical reading skills applicable to their own areas. By being forced to objectify their own critical thinking processes, teachers of subject fields can make a valuable contribution to student learning and to the understanding of the processes involved in mastering the field.

Literary Reading

The domain of literary reading is the content of the discipline of English. The skills listed under area III are specific to the effective reading of literature and need to be taught along with it. Skills A to D are traditional literary skills; E and F are suggested additions to the English skills portfolio. Affective Identification suggests that the student find a link between his own experience or that of someone he knows or has heard of and the experience portrayed in the literary work. Generalization suggests that the student extract some general statement about life or people from the work and be able to trace the evidence that lead him to this generalization. Skills E and F are attempts to move out of the rather narrow domain implied by most literary skills list to include experiences which allow the student to deal with the whole work and its relation to him/her.

Language Study

Like Literary Reading, Language Study is largely in the domain of the teacher of English. This area includes basic information about spelling, syntax, and sentence construction. Rhetoric is an important component which shows how language works. The teacher of social studies may also become involved in rhetoric through the study of techniques of persuasion.

A Final Word

While teachers of English are typically burdened with the full responsibility of teaching reading/writing skills, examination of the skills array suggests that teacher responsibility should depend on the area involved. In some areas the teacher of English has a major role. These are Literary Reading, and Language Study, which represent part of the discipline of English. In other areas, Reading for Information and Critical Reading, the Teacher of English has what might be called an initiating role. That is, teachers of English might introduce a skill in a global way, but full development would involve transfer of training into one or several additional subject areas.

Assigning the domain of reading/writing skills totally to the teacher of English is helpful to no one. More student progress and understanding of processes of subject matter learning will come when attention is paid by teachers in all disciplines to the perplexing and intricate task of helping their students to read.

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SKILLS LIST FOR ENGLISH

INITIATING SKILLS

I. Reading for Information
   - A. Vocabulary Development
   - B. Literal Reading
     1. Main idea (paragraph patterns)
     2. Following directions
   - C. Information Gathering
     1. Summarizing (precis writing)
     2. Outlining

II. Critical Reading
   - A. Inference
   - B. Fact vs. Opinion
   - C. Judging Authority
   - D. Predicting Outcomes
   - E. Drawing Conclusions
   - F. Judging and Inferring Bias
   - G. Validating Conclusions
   - H. Evaluating Success of Argument

MAJOR SKILLS

III. Literary Reading
   - A. Figurative Language
   - B. Tone
   - C. Mood
   - D. Point of View
   - E. Affective Identification
   - F. Generalization

IV. Language Study
   - A. Spelling
   - B. Syntax
   - C. Sentence Construction
   - D. Rhetoric

READING: ANOTHER IMPORTANT TOOL OF VOCATIONAL EDUCATION

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It is becoming apparent that vocational education is assuming a very important role in American life and education. The recent passage of the 1976 Amendments to the Vocational Education Act of 1963 is noteworthy since they appropriate hundreds of millions of dollars for that purpose. The fact that there is a high level of chronic unemployment among youth indicates that preparation for the work world needs to be strengthened as an important educational objective. Many thousands of these young people are without those salable skills provided by the curriculum in the vocational setting. Furthermore, the acceleration of technological growth is producing the need for middle-level workers with post-secondary occupational preparation; it is also the impetus for the creation of new occupational specialties. These developments and others point to the increasing need for the possession of strong reading skills by the vocational graduate and to the need to confront this task in the vocational school in an expeditious and effective manner.

To do so, however, we must first consider the real and crucial differences between the general public education system and its parallel partner, the vocational education system. In the first place, there is another, separate organizational structure for vocational education. It has its own County Board of Education and State Advisory Committee. The funding is provided on a matching basis from federal and state sources. The federal regulations arising from this funding places considerable constraints upon vocational schools to meet federal guidelines prescribed by legislative enactments. Also, many vocational programs are provided at separate sites from those of the public high school. The comprehensive high school also provides valuable vocational programs. The vocational sector of public education has its own rationale and goals, mainly to prepare the student for entry-level employment in an occupational specialty of his choice.

The teaching staff of vocational schools are required to have several years of successful work experience in their specialty as one basis for selection. Many are vocational school graduates themselves. There is a wide range of academic preparation among these instructors though. The students have made a considered and deliberate choice to attend. They have committed themselves to achieve personal goals related to occupational choice, while at the same time fulfilling academic requirements for graduation. Instructional provisions enable students

to spend as much as three hours a day, five days a week in the shop area of their choice. Their shop work consists mainly of manipulative, or "hands on" experience, coupled with the necessary theory and related work in other areas. The student's relationship with his instructor, in many instances, transcends that typically encountered in comprehensive high schools. In summary, we have a parallel, but distinctive educational effort which imposes its own requirements as well as providing special opportunities for achievement.

What are the reading requirements that arise from work in this particular educational milieu? They can be classified in several categories:

1. There is a genuine need for the successful vocational student to have a firm grasp of the theoretical foundations of the trade chosen. This grasp is the result of an understanding of the basic principles upon which the trade is based. It stems from work in the shop and in the classroom of related areas.

2. The successful vocational student should possess the skills to utilize effectively trade information that would enable him to secure entry-level employment and to advance in the occupation.

3. The key to the accomplishment of these goals is in a knowledgeable integration of theory and practice by means of the exercise of reasoning, insights and higher reading competencies.

4. For many students in several vocational areas, it is essential to prepare for post-secondary vocational pursuits. An increasing number of specialties are becoming more technologically sophisticated and entry-level employment requirements are being raised.

5. As many vocational graduates do not pursue the specialty for which they have been trained, it is important to provide opportunities for students to secure a breadth of scope to assist in preparation for occupational mobility. This can be done by means of the occupational cluster concept and other approaches.

Therefore, reading skills are intimately involved in the successful vocational student's pursuit of personal objectives as well as the system's provision of opportunities for achievement and future advancement.

In what ways can reading skill improvement in this environment be addressed? Several considerations must govern our efforts. It is essential that reading improvement be directed to the achievement of vocational goals by students. Their motivation should direct them

to the use of reading skills and to the improvement and strengthening of these skills. The most direct path to this objective is in the person of the shop instructor, who is a model of vocational proficiency and personal aspiration. It is important to support shop instructors who try to persuade students of the value of reading as an important vocational tool. They also need assistance as they structure learning tasks in a natural way to incorporate reading skill work in the shop area.

Many vocational schools have no reading personnel. When they are present, generally they operate as remedial reading teachers. Another--the use of reading personnel as resource persons in the shop area and linkages between the academic and vocational components of the student's total program--offers the strengths needed in this particular setting. The chart below compares and contrasts these two approaches:

	Traditional Role	Innovative Shop Role
Function	Line function	Staff function
Students	Remedial	Every student in shop
Site	Reading room	Shop area
Goal thrust	Improve reading skills	Improve vocational preparation
Materials	Commercial reading texts, workbooks, trade books	Vocational texts, theories & applications
Relation to shop personnel	Essentially apart	Active collaborator
Relation to linkage with other personnel	Isolated	Active bridge to all personnel in instructional matrix
Interest factor (of students)	Minimal	Utilizing student's interest constantly and naturally
Perception of student toward teacher & self	More distant; more reluctant; labeled	Immediate; involved & success oriented
Approach	Learning to read	Reading to learn

In the vocational setting, reading skill requirements do not disappear, nor are they rendered inoperative. To the contrary, they are needed now more than ever to allow vocational students to reach their potential. Reading personnel must view the vocational school as an important stage in the development of human beings, as a splendid opportunity to interact with dedicated, capable, intelligent young men and women. They are on the road to career success and fulfillment; youth who can benefit from an orientation of reading strength and lifelong learning.

AN ANNOTATED BIBLIOGRAPHY OF TWELVE SELECTED TEXTS FOR TEACHING READING ON THE SECONDARY LEVEL

by

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1. Auckerman, Robert C. Reading in the Secondary School Classroom. New York: McGraw-Hill, 1972.

The nature of this text is summarized in the Preface:

> This is not a book on "remedial reading"...it is not intended to make you a "reading specialist." Rather, the main objective of this book is the improvement of learning in the content areas.

Eleven chapters contain material applicable to all academic subjects including assessing reading ability, determining readability, formulating reading assignments, survey techniques, reading for main ideas, and helping the college-bound, and the poorer students. "Utilizing the Resources of the School," "Forming a Professional Bookshelf" are chapters helpful to all teachers.

Auckerman claims to have the most comprehensive treatment of reading as the core of instruction in the content areas of English, Science, Mathematics, Business, Industrial Arts, Vocational Education, and Home Economics. Six chapters provide specific guidelines for each of these areas.

A basis for this claim may be in the contribution of secondary teachers, principals, reading consultants and students to the contents of the text. Specifically, a nucleus of 15 (later 17) teachers and principals formed the New England School Development Council (NESDEC), whose purpose was to formulate some guidelines that would upgrade reading practices in secondary schools. States Auckerman, "The book is the result of many hours of brainstorming, sharing know how and intensive work sessions" over the period of 1966-67. "This is not the final word," though it is a beginning for constructive action as Auckerman draws on activities and successful experiences of the classroom participants. Selected references are also provided for each chapter.

2. Burmeister, Lou E. Reading Strategies for Secondary School Teachers. Reading, Massachusetts: Addison-Wesley, 1974.

Burmeister directly addresses the content area teacher in this text that blends cognitive and affective learning theory with practical activities--strategies--for classroom and schoolwide programs.

The four major units organize key areas of reading in secondary. Unit One, "Adjusting Reading Materials for All Students," discusses range of reading, and why some students do not read on grade level; readability formulas; standard and informal reading tests; and assessing student interest.

Unit Two, "Developing Classroom Strategies for Reading in Content Areas" has one chapter covering skills for Science, Mathematics, Social Studies, and English; the SQ3R method and variations for these content areas; and classroom management plans from individualizing to the unit plan.

Unit Three, "Improving Learning Through Reading Development in Content Areas," has chapters on vocabulary building, developing literal comprehension, interpreting and applying ideas, analyzing, synthesizing, and evaluating ideas, and improving speed of comprehension--all related to reading.

The final unit outlines how to utilize schoolwide resources and staff through library resources and establishing schoolwide reading.

Three appendices give the Dale-Chall Readability Formula, the Informal Reading Inventory, procedure and interpretation of results, and a list of morphemes commonly used in specific content fields.

3. Dechant, Emerald. Reading Improvement in the Secondary School. Englewood Cliffs, New Jersey: Prentice-Hall, 1973.

Dechant's stated purpose is that this text be used by "teachers-in-service." Towards this purpose, the initial chapters present a concise discussion of the process of reading--the nature of reading itself and the factors involved in the nature of the secondary learner. Also, "Materials for Teaching Reading" gives references for developmental and remedial instruction.

Reading skills are presented in separate and detailed chapters. Dechant includes an extensive chapter titled, "Teaching Word Recognition Skills: The Decoding Process." For any teacher who may apply phonics without knowing how to explain it, this chapter compacts, "How to teach..." vowels, consonant blends, digraphs, problem consonants, silent letters, -ing and -ed, syllabication, accentuation and common sight words. Numerous tables and examples, with sample lessons are provided.

Equally thorough are the chapters on "Developing a Meaningful Vocabulary," including synonyms, antonyms, homonyms, roots, affixes, using punctuation for context clues, dictionary skills, technical vocabulary, and more; "Advancing the Student's Comprehension Skills," which includes the major questions of main idea, etc., critical reading, study skill methods, and using graphs, maps, etc.; and "Teaching Rate of Comprehension," which discusses the value of increased speed, the pros and cons of the various hardware available and an explanation of skimming and scanning.

Dechant's treatment of content area reading is more limited: only one chapter for discussion of literature, social studies, mathematics, science and vocational studies. However, the entire text is a practical source book for all teachers and can be adapted to any subject area by a teacher attuned to teaching reading. A final chapter on corrective and remedial reading in secondary school discusses the steps for diagnosis through remediation, completing the discussion of teaching reading at all levels within the secondary school.

4. Forgan, Harry W. and Mangrum, Charles T., II. Teaching Content Area Reading Skills, A Modular, Pre-Service and In-Service Program. Columbus, Ohio: Charles E. Merrill, 1976.

This text is based on the premise that teachers who are the most effective in helping students read specialized content materials are the teachers of the content areas. Ten basic competencies are taught in ten modules, which consist of an overview of the chapter, a pre-test checklist designed for self-evaluation, directions for going through the module to meet needed objectives, "enabling elements" which are activities to accomplish specific objectives, and a post test. Also, selected bibliographies are provided at the end of each module for further information and other ideas.

This text is a handbook for all teachers. Module 1 teaches how to determine readability, with tasks designed to initiate the novice in how to count syllables for Fry's Readability Formula. Modules 2 and 3 apply the concept of readability by teaching how to prepare materials for various readability levels, and determining suitability of materials.

Module 4 gives specific information for each content area on what reading skills are necessary and how to prepare skill tests to diagnose reading skill needs in content areas.

Modules 5-8 directly confront the basics of reading with "Teaching Word Meanings," "Helping Students Comprehend," "...Use Study Strategies," "...Pronounce Multisyllable Words."

The final modules teach to the problem of how to motivate reluctant readers and how to identify and help problem readers.

5. Hafner, Lawrence E. Improving Reading in Middle and Secondary Schools, Selected Readings, second edition. New York: MacMillan, 1974.

The stated purpose of this book is "to make available a sizable number of excellent articles on the important facets of teaching reading in the middle and secondary schools."

Each selection is preceded by an introduction, and each selection is also preceded by questions to guide one's reading. This format is in keeping with the methodology expounded in the literature.

The units are arranged on a general to specific level. "Reading in Modern Life," "Definitions of Reading," "Reading, Learning and Human Development," are appropriate for all teachers, as are specific skills of decoding, critical/interpretive reading, vocabulary, reading for research and study, flexibility, and the areas of evaluation and measurement, encouraging reading interests, and helping disadvantaged and reluctant readers.

For specific content areas, a unit each is given to Vocational Arts, Science/Mathematics, English, Social Studies, Business Education, Home Economics, and Foreign Languages.

6. Hafner, Lawrence E. Developmental Reading in Middle and Secondary Schools: Foundations, Strategies and Skills for Teaching. MacMillan Publishing Co., Inc., 1977.

Hafner's text is organized around four sections: reading foundations, developing and organizing meanings, teaching strategies for improving skills in the content areas with basic procedures [illegible] teaching content area lessons and teaching reading acquisition [illegible]s. The book can be used either for teaching prospective teachers and/or reading specialists developmental reading at the undergraduate or graduate level as a first or second course. The text is filled with many practical examples and activities and presents critical research and a comprehensive bibliography related to these practices.

7. Herber, Harold L. Teaching Reading in the Content Areas. Englewood Cliffs, New Jersey: Prentice-Hall, 1970.

Herber's format is designed to practice what it teaches. The prescriptive approach to the basic secondary subjects of English, Social Studies, Mathematics and Science is used to show how learning skills can be taught along with content. Each chapter first presents technical vocabulary, includes study guides and illustrative lesson materials with the explanations. The purpose is to help students acquire the skills needed for adequate study in all subject areas by

either using the text, or by having the teacher practice and learn the methods of reading for a purpose, knowing vocabulary, and using the study skills of previewing, questioning and recitation.

Comprehension skills, vocabulary development, organizational patterns, and adaptation of skills to subject areas are presented with the prescriptive format of doing and checking which are termed "guides." Instructional problems, remedies, a framework and a discussion of individualizing, grouping, and testing procedures are also presented in this manner.

The four basic content areas are presented in the Appendix where a "Reading and Reasoning Guide" is given for each area, which are teacher/student inspired lesson plans for specific classroom lessons. These specific lessons are to be used as guides for developing activities appropriate to individual materials.

8. Karlin, Robert. Teaching Reading In High School, second edition. New York: Bobbs-Merrill Company, Inc., 1972.

Karlin gives much attention to the reading skills of word recognition, comprehension and interpretation, study skills, speed in reading, as well as reading for appreciation, what students want and need to read, and developing interest in reading.

In Part I, "Background to Reading," Karlin discusses causes of reading difficulties such as visual, hearing and intelligence and emotional factors; the psychology of reading and measurement, and evaluation of reading.

The final part of the text, "Reading and Reading Programs," discusses developmental reading and the content field for English, Science, Mathematics, Social Studies, Health, and Industrial Arts. Individualized reading, organizing reading programs and samples of possible programs are also included.

An asset to Karlin's study is his discussion of the reading problem on the secondary level. Karlin identifies six areas for a balanced program of reading instruction as originally suggested by Nila Banton Smith: word recognition, meaning, study skills, appreciation, speed, and interests.

9. Miller, Wilma H. Teaching Reading in the Secondary School. Springfield, Illinois: Charles C. Thomas, Publisher, 1974.

Like Herber, Miller uses the vocabulary overview, and sets a purpose for each chapter. The overall purpose of this text is to help prospective and in-service secondary teachers of content areas learn techniques to provide appropriate reading instruction in their area.

The reading process, a rationale for secondary reading instruction provide a theory base. Specific areas of instruction are given in chapters on improving vocabulary, comprehension, rate of reading, and study skills.

Additional helpful chapters are "Motivating Reading in Secondary Content Classes," "Evaluating Reading Achievement," and "Assessing Textbook Readability." The latter explains and implements the Dale-Chall and Fry formulas.

Miller then presents a detailed chapter which synthesizes the preceding chapters for "Individualizing Reading in English," ...Social Studies," "...Science," "...Mathematics," "...Business," "...Industrial Arts, Home Economics and Agriculture," "...Physical Education and Driver Education," "...the Fine Arts." These chapters analyze special skills needed for the subject areas, discusses how to individualize reading and presents methods such as SQ3R, reading and reasoning guides, vocabulary development activities. Models of the suggested materials are provided.

10. Robinson, H. Alan. Teaching Reading and Study Strategies; The Content Areas. Boston: Allyn and Bacon, 1975.

Intended as the companion volume to the Thomas is Robinson's Improving Reading in Every Class; A Source for Teachers. This text's main emphasis is on teaching and learning specific reading techniques--strategies--through the types of writing used in content area material. Part I deals with general strategies for all subjects, with chapters on evaluation, (standardized and informal tests, observation and self-appraisals), vocabulary (dictionary, context clues, syntactic, internal clues, etc.), readiness (study guides, pre-reading, teacher directed and self-help), and types of paragraphs and their functions (explanatory, introductory, summarizing, etc.).

Four chapters deal specifically with the content areas of English, Science, Social Studies, and Mathematics. A fifth chapter addresses the diverse contact areas of Bookkeeping, Business Law, Accounting, Drivers Education, Health, Home Economics, and Industrial Arts.

The writing patterns used in these content areas are examined for the specific type of reading required. For example, Science "patterns" include problem solving and generalizations. Mathematics uses symbol systems and concept development; Social Studies, primary sources, topic development; and English, by nature, incorporates reading rates, flexibility, reading literature, newspapers and magazines.

The final two chapters detail how to develop and utilize a total reading program by discussing the tasks, i.e., creative thinking, lifetime reader, total school involvement, etc. and the special reading services such as a reading committee, consultant, using test results and matching materials, and the role of the administrator.

11. Shepherd, David L. Comprehensive High School Reading Methods. Columbus, Ohio: Charles E. Merrill, Co., 1973.

Vocabulary, word analysis, comprehension of reading material, and study skills form the core of Shepherd's methodology as presented in this text's initial chapters. These are synthesized in the chapter "Basic Procedures" which clarifies how to apply these areas to lesson plans and learning.

Five chapters relate "Applying Reading Skills to English," "...Social Studies," "...Science," "...Mathematics," with one chapter on "...Other Areas," including Business, Industrial Arts, Home Economics, Foreign Language, Art, Music, Physical Education and Health Education.

Shepherd includes chapters on diagnosis specifically to aid in effective teaching; individualizing instruction, with suggestions for working with superior, slow, disabled reluctant, and culturally different readers; and how to establish and maintain a complete high school reading program.

12. Thomas, Ellen L. and Robinson, H. Alan. Improving Reading in Every Class: A Source for Teachers. Boston: Allyn and Bacon, 1972.

As indicated by the title, this is a source book with practical suggestions for teachers in elementary through college. Four chapters present methods for teaching vocabulary, comprehension, rate and problem solving. Ten chapters are specifically headed by the secondary content areas of Mathematics, Science, Industrial Arts and Vocational, Typewriting and Business, Foreign Languages, Home Economics, Music, Library Services, Fine Arts, and Physical Education, with practical examples in each of how to integrate reading with specific subjects.

In Chapter One, "How to Use This Book," the authors present a subject/area index which gives page numbers for specific help in the content areas; e.g., laboratory procedures under science. "General Aids for Improving Reading," includes the five areas of vocabulary, word attack, comprehension, flexibility/rate of reading and problem solving/topic development.

In addition, within chapters, Thomas and Robinson provide useful tables of references and concepts. For example, a comprehensive list of books on word origins and derivations including title, author, publisher and date, with a brief description of special attributes is given to assist in etymological study. These texts are also arranged for age appropriateness. Many teachers would also find the extensive tables of affixes and their meanings useful in building vocabulary concepts.

FUNCTIONAL EDUCATION NEEDS OF NEW JERSEY ADULT BASIC EDUCATION STUDENTS

by Jane F. Flaherty
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(This article summarizes some of the major findings of a study conducted by the Center for Adult Development, Graduate School of Education, Rutgers University under a Special Projects (309) Grant from the New Jersey State Department of Education, Division of Field Services, Bureau of Adult, Continuing, and Community Education. Copies of the Final Report of the Adult Functional Competency Project, entitled A Study of the Functional Education Needs of New Jersey Adult Basic Education Students (Center Monograph #1), are available from the Center for Adult Development.)

Background

The question of what should be taught in adult literacy programs has been a matter for debate from the inception of federally funded adult basic education (ABE). The Adult Education Act(8) which has provided funds for ABE programs for the past decade, emphasizes the need for teaching skills necessary for daily living and meeting adult responsibilities. In practice, however, most ABE teachers emphasize the basic skills--reading, writing, and arithmetic--and they make varying degrees of effort to apply these skills to practical life situations(5).

The Adult Performance Level (APL) Study(2) conducted from 1972 to 1976 by the University of Texas, has brought concern for teaching life skills to national attention. The study identified 65 "objectives" which comprise functional literacy and grouped them into five "general knowledge areas": Occupational Knowledge, Consumer Economics, Health, Community Resources, and Government and Law. The APL theory suggests that the basic skills be taught within the context of these five "knowledge areas" in order to enable students to cope with or carry out their responsibilities in life. The U.S. Office of Education is a strong advocate of the APL approach, having sponsored the study, and is urging local ABE programs to accept these objectives as valid. As a result many programs have begun to develop curricula and materials which address the APL objectives.

The question of how these objectives were determined is a crucial issue for ABE curriculum developers. According to the APL Study's report, the study used four sources of information to identify the objectives: 1) a review of related literature and research, 2) a survey of state and federal agencies and foundations, 3) input from

adult educators, members of the business sector, and representatives of government agencies, and 4) interviews with undereducated and underemployed persons.

Unfortunately, the APL Study's reports(1)(2)(3)(6)(7) do not include a discussion of their sources of information, what information was obtained from each, and how the information was used to identify the objectives. The fourth source--undereducated and underemployed persons--is of particular interest because of the general under-utilization of the learner as a source of information for curriculum decisions, and because of the widely held tenet of adult educators that adult students' self-perceived needs should figure prominently in curriculum decisions.

The APL Study has not made available such information as how many undereducated and underemployed persons were interviewed, the demographic characteristics of the sample, what questions were asked of them, or what they said. The Rutgers study, on which this article will report, fulfilled - at least to some degree - the need for a systematic study of the self-perceived needs of students enrolled in ABE programs.

Methodology

The study population consisted of all English-speaking students in New Jersey ABE programs who were enrolled in public school adult evening classes or in day or evening adult learning centers sponsored by school districts or community colleges. Students enrolled in English as a Second Language (ESL) classes were excluded; however, foreign-born students assigned to classes along with native speakers of English, and in which a 3R approach rather than an ESL approach was used, were included. The final study sample comprised 204 ABE students selected by a probability proportionate to size (PPS) sampling design(4). This design yielded a stratified random sample proportionate to the size distribution of ABE programs in the state.

The primary instrument used in data collection was a structured interview schedule designed to determine the felt needs of ABE students with regard to the APL competencies. Forty-two competencies were included in the interview schedule to reflect the objectives in each of the five APL knowledge areas, as well as the total body of 65 objectives. This was done by examining the 65 objectives and identifying specific competencies related to them that could be stated briefly and in terms that would be understandable to the ABE students. Various drafts of the interview schedule were field tested on 21 ABE students in five different programs. Interviews, which averaged about 45 minutes, were conducted by fifteen trained interviewers. Each respondent was also administered the APL Survey (a test based on the APL objectives) and the Tests of Adult Basic Education (TABE) Level M, Reading Comprehension Subtest G.

Description of the Sample

Fifty-seven percent of the sample were female. Fifty-four percent were black, 7% were Puerto Rican, and 18% were foreign-born. Sixty-one percent lived in urban areas, 24% in suburban areas, and 15% in rural communities. Seventeen percent were under 20 years of age and 41% were 20 to 29, while only 7% were over 50. Twenty-one percent reported completing less than 8 years of schooling, while 12% said they completed high school. Forty-one percent of those interviewed were unemployed, 20% reported welfare as their primary source of income, 10% were homemakers, and 42% were heads of household. Fifty-three percent said they enrolled in ABE to complete high school and/or prepare for college. Fourteen percent were low readers (0-4 grade level), 61% were intermediate readers (5-7 grade level), and 26% were advanced readers (8 grade or above).

Results

What Competencies Do ABE Students Most Want to Learn?

During the interviews, 42 competencies in the five APL knowledge areas were presented to the ABE students. They were asked whether they wanted to learn each in their adult education class this year. The responses for competencies within each of the five knowledge areas are summarized in Tables 1 through 5. The competencies are listed in order of their importance as indicated by the percentage of students who said they wanted to learn each. The mean and median percentages are indicated for each area, along with the range of percentages. In interpreting these tables, it will be useful to compare the data with the overall summary data:

Mean = 57.7%
Median = 63.2%
Range = 66.2 (19.6 to 85.8%)

Table 1

Ranking of Competencies for Occupational Knowledge
(N=204)

Competency		Rank	Percent Want To Learn
Fringe benefits offered by different employers (e.g. sick pay, vacations)		(1)	83.3
Where to get help finding a job		(2)	78.9
What to do and say at a job interview		(3)	77.5
Unions		(4)	74.4
How to fill out job applications		(5)	65.7
Reading and using help wanted ads in the newspaper		(6)	59.8
How to keep from getting fired		(7)	59.3
Totals	Mean		71.3
	Median		74.4
	Range		24.0 (59.3 to 83.3)

Table 2

Ranking of Competencies for Consumer Economics
(N=204)

Competency		Rank	Percent Want To Learn
Where to get help if you're cheated		(1)	85.8
Filling out an income tax form		(2)	82.8
Guarantees and warrantees		(3)	74.4
Life insurance		(4)	70.6
How to compute and compare unit prices		(4)	70.6
Budgeting your money		(6)	69.1
Apartment leases		(7)	63.2
Buying a house		(8)	62.7
Using a checking account at a bank		(9)	59.8
Getting a charge account or a credit card		(10)	46.8
Reading advertisements in a newspaper		(11)	45.1
Using a cooking recipe		(12)	38.7
Reading and using coupons		(13)	35.3
Ordering from a restaurant menu		(14)	24.5
	Mean		60.2
Totals	Median		62.9
	Range		61.3
			(24.5 to 85.8)

Table 3

Ranking of Competencies for Health
(N=204)

Competency		Rank	Percent Want To Learn
What is dangerous to health		(1)	67.6
How to prevent a fire in your home		(2)	67.0
What to eat to keep healthy		(3)	63.2
Reading and using a thermometer		(4)	56.4
Reading a calorie chart and figuring out how many calories you have eaten		(5)	50.7
How to read medicine labels		(6)	30.9
Methods of birth control		(7)	30.7
	Mean		52.3
Totals	Median		56.4
	Range		36.9
			(30.7 to 67.6)

Table 4

Ranking of Competencies for Government and Law
(N=204)

Competency		Rank	Percent Want To Learn
How the government spends your tax dollar		(1)	81.3
How laws are made		(1)	81.3
How the court system works		(3)	77.9
Rights of a person who is arrested		(4)	75.5
To read and use a voting ballot		(5)	58.6
How to get a lawyer		(6)	56.4
Totals	Mean		71.7
	Median		76.7
	Range		24.9
			(56.4 to 81.3)

Table 5

Ranking of Competencies for Community Resources
(N=204)

Competency		Rank	Percent Want To Learn
Where to get information (on anything) when you need it		(1)	80.3
Where to get money if you don't have a job		(2)	70.0
How to use a city map or road map		(3)	63.1
Rules for driving in New Jersey		(4)	43.6
Parks and recreation in your community		(5)	41.7
Reading direction signs (e.g. signs in a subway or bus station, or on the street)		(6)	33.8
How to read a bus or train schedule		(7)	30.5
How to use a telephone directory		(8)	19.6
Totals	Mean		47.8
	Median		42.7
	Range		60.7
			(19.6 to 80.3)

The Occupational Knowledge[4] and Government and Law area means and medians are well above the overall mean and median. All of the competencies in these two areas are in the middle and upper range; no competencies are of low priority as perceived by the respondents. These two areas, therefore, are apparently the most important to the

ABE students. The Consumer Economics mean and median are near the overall mean and median. The range, however, is large. There are several low ranking competencies, as well as several that rank high. The means and medians for the Health and Community Resources areas are well below the overall mean and median. The Health competencies fall in the middle and lower range, while the Community Resources competencies range from very low to high.

On the basis of these data, a curriculum developer may elect to disregard the lowest ranking competencies and include only the competencies of high and moderate importance. Three areas would deserve primary attention: Occupational Knowledge, Government and Law, and Consumer Economics. The remaining two areas--Health and Community Resources--would be given less consideration.

Looking at individual competencies without regard for knowledge areas, the ABE students showed widely ranging degrees of interest in learning them. The highest ranking competency was "Where to get help if you're cheated," which 85.8% of the students wanted to learn, while the competency of least importance to the students was "How to use a telephone directory," which only 19.6% wanted to learn. Table 6 lists the 42 competencies in order of importance from highest to lowest.

Table 6

Ranking of Competencies for Combined Knowledge Areas
(N=204)

Competency	Rank	Percent Want To Learn
Where to get help if you're cheated	(1)	85.8
Fringe benefits offered by different employers (e.g. sick pay, vacations)	(2)	83.3
Filling out an income tax form	(3)	82.8
How the government spends your tax dollar	(4)	81.3
How the laws are made	(4)	81.3
Where to get information (on anything) when you need it	(6)	80.3
Where to get help finding a job	(7)	78.9
How the court system works	(8)	77.9
What to do and say at a job interview	(9)	77.5
Rights of a person who is arrested	(10)	75.5
Guarantees and warrantees	(11)	74.4
Unions	(11)	74.4
How to compute and compare unit prices	(13)	70.6

(con't)

Table 6 (con't)

Competency		Rank	Percent Want To Learn
Life insurance		(13)	70.6
Where to get money if you don't have a job		(15)	70.0
Budgeting your money		(16)	69.1
What is dangerous to health (e.g. cigarettes, pollution)		(17)	67.6
How to prevent a fire in your home		(18)	67.0
How to fill out job applications		(19)	65.7
What to eat to keep healthy		(20)	63.2
Apartment leases		(20)	63.2
How to use a city map or road map		(22)	63.1
Buying a house		(23)	62.7
Using a checking account at a bank		(24)	59.8
Reading and using help wanted ads in the newspaper		(24)	59.8
How to keep from getting fired		(26)	59.3
To read and use a voting ballot		(27)	58.6
How to get a lawyer		(28)	56.4
Reading and using a thermometer		(28)	56.4
Reading a calorie chart and figuring out how many calories you have eaten		(30)	50.7
Getting a charge account or a credit card		(31)	46.8
Reading advertisements in a newspaper		(32)	45.1
Rules for driving in New Jersey		(33)	43.6
Parks and recreation in your community		(34)	41.7
Using a cooking recipe		(35)	38.7
Reading and using coupons		(36)	35.3
Reading direction signs (e.g. signs in a subway or bus station, or on the street)		(37)	33.8
How to read medicine labels		(38)	30.9
Methods of birth control		(39)	30.7
How to read a bus or a train schedule		(40)	30.5
Ordering from a restaurant menu		(41)	24.5
How to use a telephone directory		(42)	19.6
Totals	Mean		57.7
	Median		63.2
	Range		66.2
			(19.6 to 85.8)

What Factors Determine or Influence What ABE Students Want to Learn?

Respondents were not asked why they did or did not want to learn each competency. However, there are apparent relationships between desire to learn competencies and certain variables. Differences between students of varying characteristics are discussed below. Unless otherwise stated, all differences cited for individual competencies are statistically significant at the 0.05 level using the χ^2 test.

1) In general, whites were less interested in learning functional competencies than non-whites. There was no competency of more interest to whites than non-whites.

2) Large city and urban center dwellers were more interested than persons living in suburban and rural areas, and those living in suburban communities were least interested in learning functional competencies.

3) There was little difference in interest based on country of birth. In general, native-born, foreign-born, and Puerto Ricans had the same interests.

4) Overall, there was little difference in expressed interests of students in South Jersey programs as compared with North Jersey.

5) There was no clear indication that those who enrolled to get a GED were less interested in learning functional competencies. However, from the data collected it is difficult to determine whether or not high school completion was a goal for every respondent.

6) Those who claim their spouse as chief wage earner or head of household tend to be among those who are less interested in learning functional competencies. There was no competency that this group wanted to learn at a higher rate than other groups did. This was true of homemakers as well, in spite of the fact that one might expect them to be interested in certain types of competencies. Also, there seemed to be no general sex difference in desire to learn functional competencies, although there were three that more males wanted to learn, and two that more females wanted to learn:

	Males	Females
How to read medicine labels	42%	22%
Reading advertisements in a newspaper	63%	32%
How to use a telephone directory	28%	13%
What food to eat to keep healthy	55%	70%
How to read a city map or road map	52%	71%

There is apparently no clear pattern of females wanting to learn more home- and family-related competencies than males. In fact, a greater percentage of males than of females want to learn about "Methods of birth control" (38% vs. 25%), although this difference is not statistically significant.

7) In general, the respondents most wanted to learn those competencies about which they perceived themselves least knowledgeable. The five competencies about which respondents felt they knew the least are listed below. More than 73% felt they knew "little or nothing" about them:

Where to get help if you're cheated (73.9%)
Filling out an income tax form (87.2%)
How the government spends your tax dollar (73.8%)
How the laws are made (74.3%)
How the court system works (78.2%)

All of these are among the eight highest ranking competencies that the students wanted to learn. On the other hand, less than 21% felt they knew "little or nothing" about:

Reading direction signs (20.8%)
How to read medicine labels (16.8%)
Ordering from a restaurant menu (18.7%)
How to use a telephone directory (14.9%)

All of these are among the six lowest ranking competencies that students wanted to learn.

8) Reading ability is a predictor of interest in certain competencies. These are listed below with percentages of low (grade levels 0-4) vs. better (grade levels 5 and over) readers:

How to read medicine labels (56% vs. 27%)
How to read a bus or train schedule (44% vs. 33%)
Reading and using help wanted ads in the newspaper (90% vs. 56%)
Ordering from a restaurant menu (60% vs. 19%)
Reading advertisements in a newspaper (74% vs. 42%)
How to use a telephone directory (48% vs. 16%)
Parks and recreation in your community (63% vs. 23%)

The lowest readers were more interested in all of these than were the better readers. Note that all of these competencies are among the lowest ranking competencies for the total sample. Also, except for "Parks and Recreation," they involve basic reading skills. It is not surprising, then, that low readers would have a greater desire to learn them. This is evidence which supports the idea that ABE students are aware of their deficiencies and can assess their own needs. Trends for the four other lowest ranking competencies involving basic skills confirm this concept, although differences are not statistically significant:

Reading direction signs
Using a cooking recipe
Reading and using a voting ballot
Reading and using coupons

Although one might conclude that the above competencies should be excluded from an ABE curriculum on the basis of low priority for the total group, the fact that they are of interest to low readers justifies their inclusion in lower levels of a curriculum.

9) Those who scored lowest on the APL Survey were more interested in the competencies listed below than higher scorers. This list overlaps with, but differs significantly from, the list for low readers. The percentages following each compare the 40 lowest scorers (0-15 out of 40 correct) with the 48 highest scorers (26 or more correct):

Ordering from a restaurant menu (47% vs. 10%)
Using a checking account at a bank (60% vs. 38%)
Reading and using a thermometer (68% vs. 45%)
Reading a calorie chart and figuring out how many calories you ate (74% vs. 43%)
How to use a telephone directory (45% vs. 10%)

These competencies, too, are relatively low ranking for the total group of ABE students. However, they are apparently of greater interest to the less competent students. Each involves basic skills in reading and/or math. Again, this supports the view that undereducated adults can accurately assess their own needs.

10) Years of formal education is not, in general, a strong indicator of interest in learning functional competencies. However, the group of 7 persons who said they attended ungraded special education programs as children (therefore could not say how many grades they completed) seemed to have a greater interest in learning functional competencies than the others in the sample, particularly some of the lower ranking competencies, but also some higher ranking ones. The competencies in which their interest exceeded the interest of the total sample are listed here with the percentage of who wanted to learn them:[1]

Life insurance (100%)
Reading medicine labels (57%)
Where to get help finding a job (100%)
Ordering from a restaurant menu (57%)
Reading advertisements in the newspaper (71%)
Getting a charge account or a credit card (86%)
How to get a lawyer (100%)
How laws are made (100%)
How to use a telephone directory (43%)
Parks and recreation in your community (100%)
Rules for driving in New Jersey (71%)

Those who had less than 8 years of school also expressed greater interest in some of the lower ranking competencies, namely:

Reading medicine labels (49%)
Ordering from a restaurant menu (40%)
Reading advertisements in the newspaper (58%)
How to use a telephone directory (42%)

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[1]The percentages may be compared with those in Table 6 to determine the extent to which this group's interest exceeds that of the total sample.

11) Age is a predictor of interest in learning certain competencies. Younger people were more interested than older people in learning the competencies listed below. For some, only those under 20 expressed greater interest; in others, those in their 20's were just as interested as the very young. Those under 30 were more interested than those 30 and over in learning the following:

To read and use a voting ballot (68% vs. 47%)
What to do and say at a job interview (84% vs. 67%)
Fringe benefits offered by different employers (91% vs. 72%)
Using a checking account at a bank (72% vs. 43%)
Reading and using a thermometer (66% vs. 43%)

Those under 20 were most interested, those in their 20's less interested, and those 30 and over were least interested in learning the following competencies:

Where to get help in finding a job (94% vs. 87% vs. 65%)
How to keep from getting fired (74% vs. 66% vs. 47%)
Unions (94% vs. 82% vs. 59%)
Getting a charge account or a credit card (71% vs. 58% vs. 26%)

The students aged 50 and over expressed significantly less interest in learning about "Buying a house" and "Life insurance" than those under 50, but they were more anxious to learn "Reading and using coupons" than their juniors. As one might expect, there was a steady drop in interest in learning about "Methods of birth control" with age: 44% of those under 20 wanted to learn it and 36% of those in their 20's expressed interest, while only 25% of the 30 to 49 age group and 7% of those 50 and over wanted to learn it.

A number of the competencies of interest to younger people are of relatively high rank relative to the interests of the total group of ABE students, and so should be included in most ABE curriculums. However, in programs where large numbers of young people are enrolled, these warrant special consideration, and some of the lower ranking competencies for the overall group (e.g., "Methods of birth control" and "Reading and using a voting ballot") should perhaps be included. Note that most of the competencies of greater interest to younger than older people fall in the areas of Consumer Economics and Occupational Knowledge, areas which are viewed as high need areas by ABE students in general and which are crucial to success in becoming economically independent.

Conclusion

As evidenced by the data and analysis presented in this report, ABE students in New Jersey are interested in learning functional competencies. On the average, students responded that they wanted to learn about 60 percent of the 42 competencies presented to them in the interview. Further, many of the competencies of lesser interest to the total

sample were of greater interest to certain subgroups of the sample. For the most part, these were competencies that involved basic skills and which were of interest primarily to those in lower ABE levels.

Further, when the students were asked whether they had learned competencies in each of five APL knowledge areas in their adult education programs this year, only 8% said they had learned at least one Occupational Knowledge competency, 14% had learned one or more Consumer Economics competencies, 11% had learned Health competencies, 6% had learned Government and Law competencies, and 11% had learned Community Resources competencies. However, averages of 72%, 58%, 56%, 74%, and 50% indicated interest in learning competencies in the five areas, respectively. This is clearly indicative of a need for increased emphasis upon functional competencies in ABE curricula.

Nevertheless, New Jersey ABE students place a higher priority on learning basic skills and job skills than on APL knowledge areas. When asked what subject or skill they most wanted to learn in their ABE class, and when asked to choose from a list of basic skills and APL knowledge areas, the vast majority indicated primary interest in reading, math, and language skills, and in training for specific jobs (typing, auto mechanics, etc.). Relatively few chose APL knowledge areas.

On the basis of ABE students' self-perceived needs, then, more emphasis should be placed on functional competencies; however, ABE programs should continue to place primary emphasis on the basic skills. As one barely literate man told us, "If you teach me to read, I'll be able to do all those things." Application of the basic skills to everyday life activities, then, should be the focus of ABE programs.

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